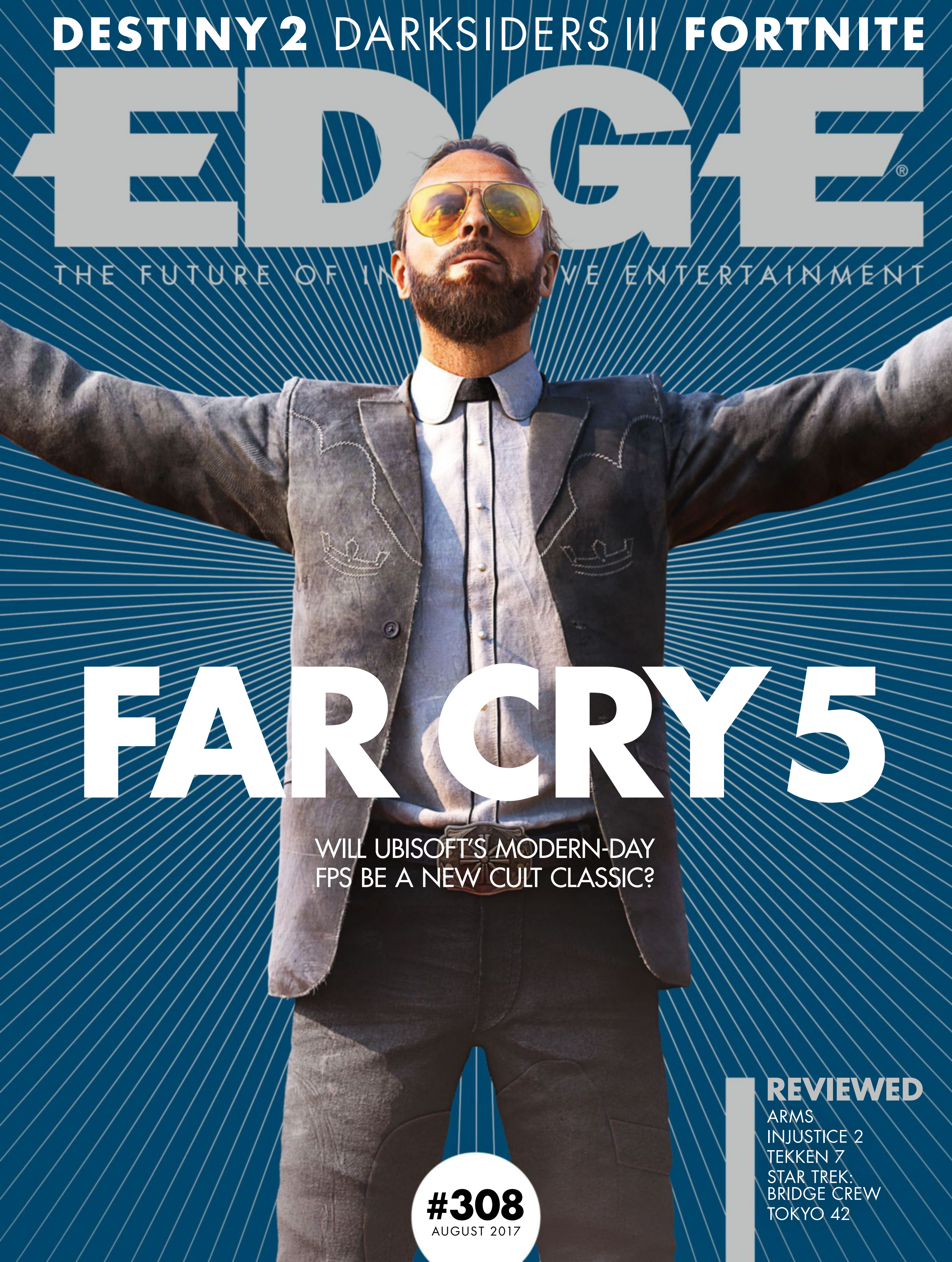
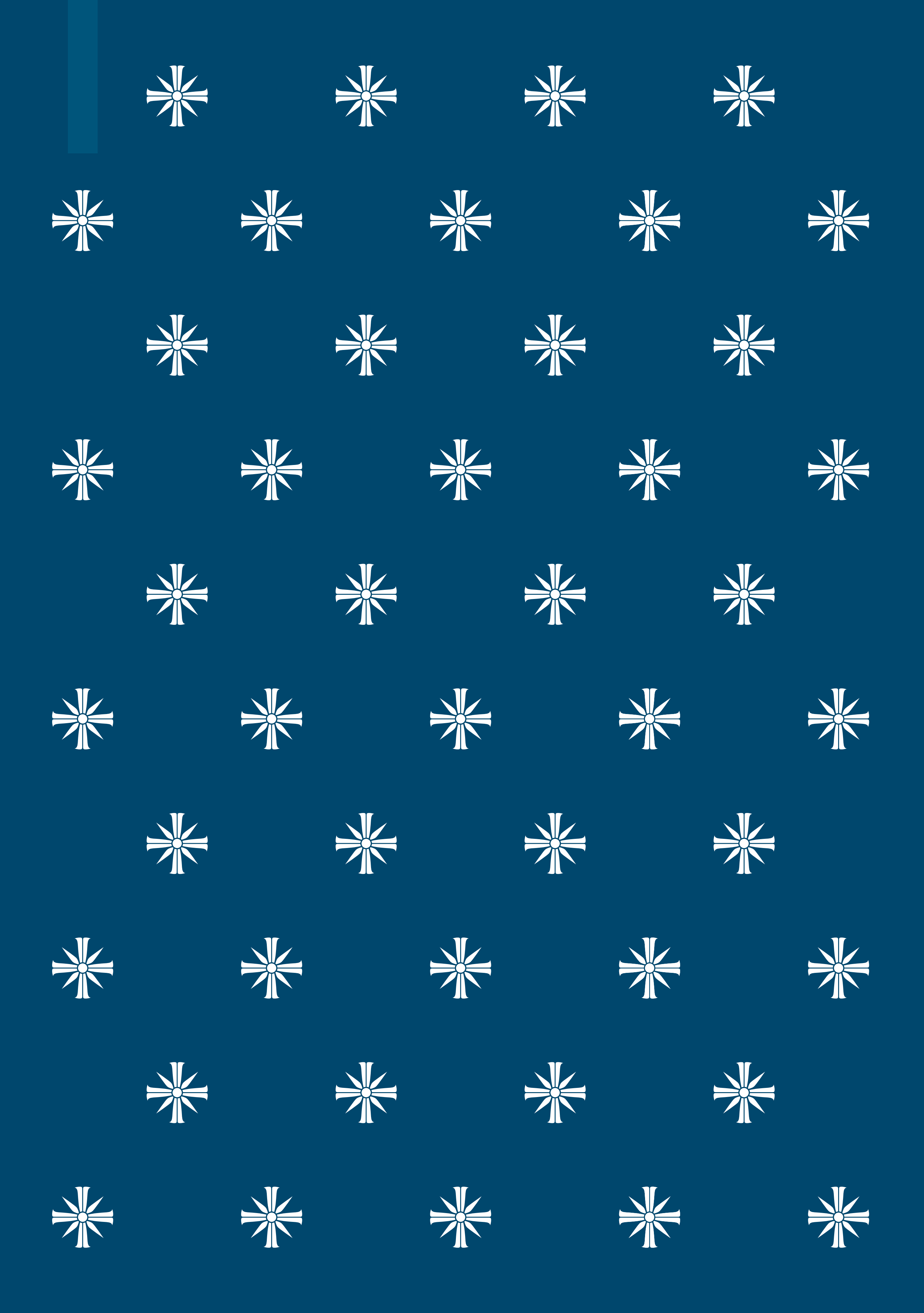

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THE FUTURE OF INTERACTIVE ENTERTAINMENT
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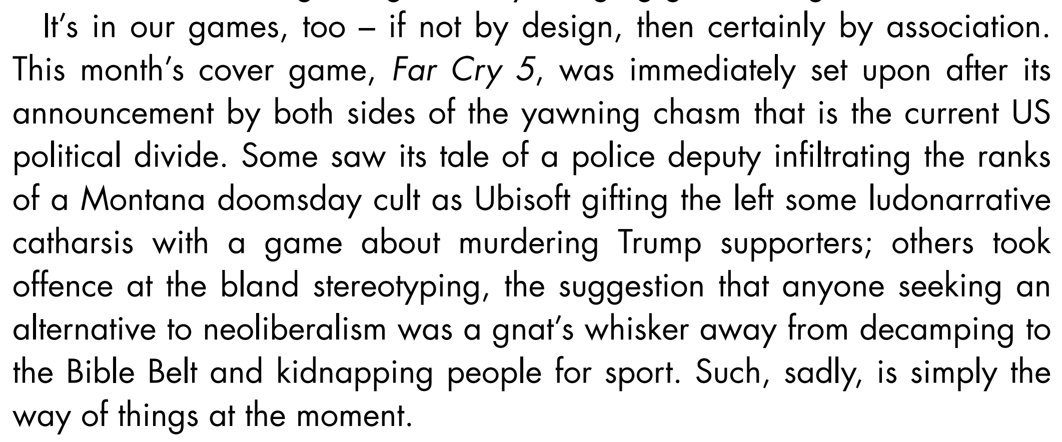


It's the end of the world as we know it, and I feel fine

If you're a bit sick of politics at the moment, we understand. By the time you read this, the UK will have been to the polls for the third time in as many years (is everything OK? We hope it's OK). Much of the world is still adjusting to life under the most divisive US president of our lifetimes. Politics is simply everywhere, landing on our doomats, blaring from our TV screens, buzzing from our phones as news alerts and Twitter notifications flood in from morning to night, rarely bringing good tidings.



Exclusive subscriber edition



It's in our games, too – if not by design, then certainly by association. This month's cover game, *Far Cry 5*, was immediately set upon after its announcement by both sides of the yawning chasm that is the current US political divide. Some saw its tale of a police deputy infiltrating the ranks of a Montana doomsday cult as Ubisoft gifting the left some ludonarrative catharsis with a game about murdering Trump supporters; others took offence at the bland stereotyping, the suggestion that anyone seeking an alternative to neoliberalism was a gnat's whisker away from decamping to the Bible Belt and kidnapping people for sport. Such, sadly, is simply the way of things at the moment.

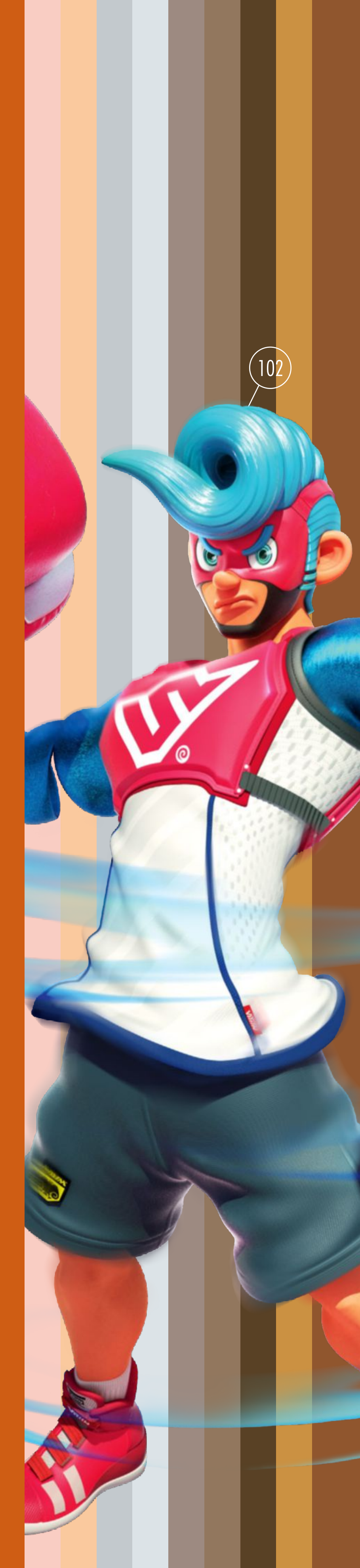
Far Cry 5's creative director downplays the suggestion that the game is making a political statement. How could it, when development began long before Trump and Brexit? And could a team of hundreds, in studios dotted across the globe, possibly reach a political consensus?

As Hay explains it, the idea came from seeing a man in a doom-mongering sandwich board, and the realisation that, for once, he might be onto something. You can certainly see his point: indeed, with all that's going on in the world today, maybe packing off to some remote hideaway with a few like-minded folk is the smart way of doing things. Sadly doing so would mean missing out on the most intriguing *Far Cry* in years; one that shakes up series conventions and, by virtue of its divisive setting, has a heck of a story to tell – whatever your politics. Our story begins on p62.



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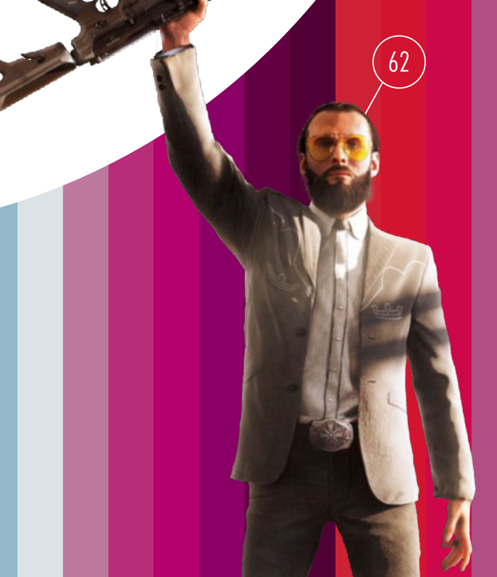
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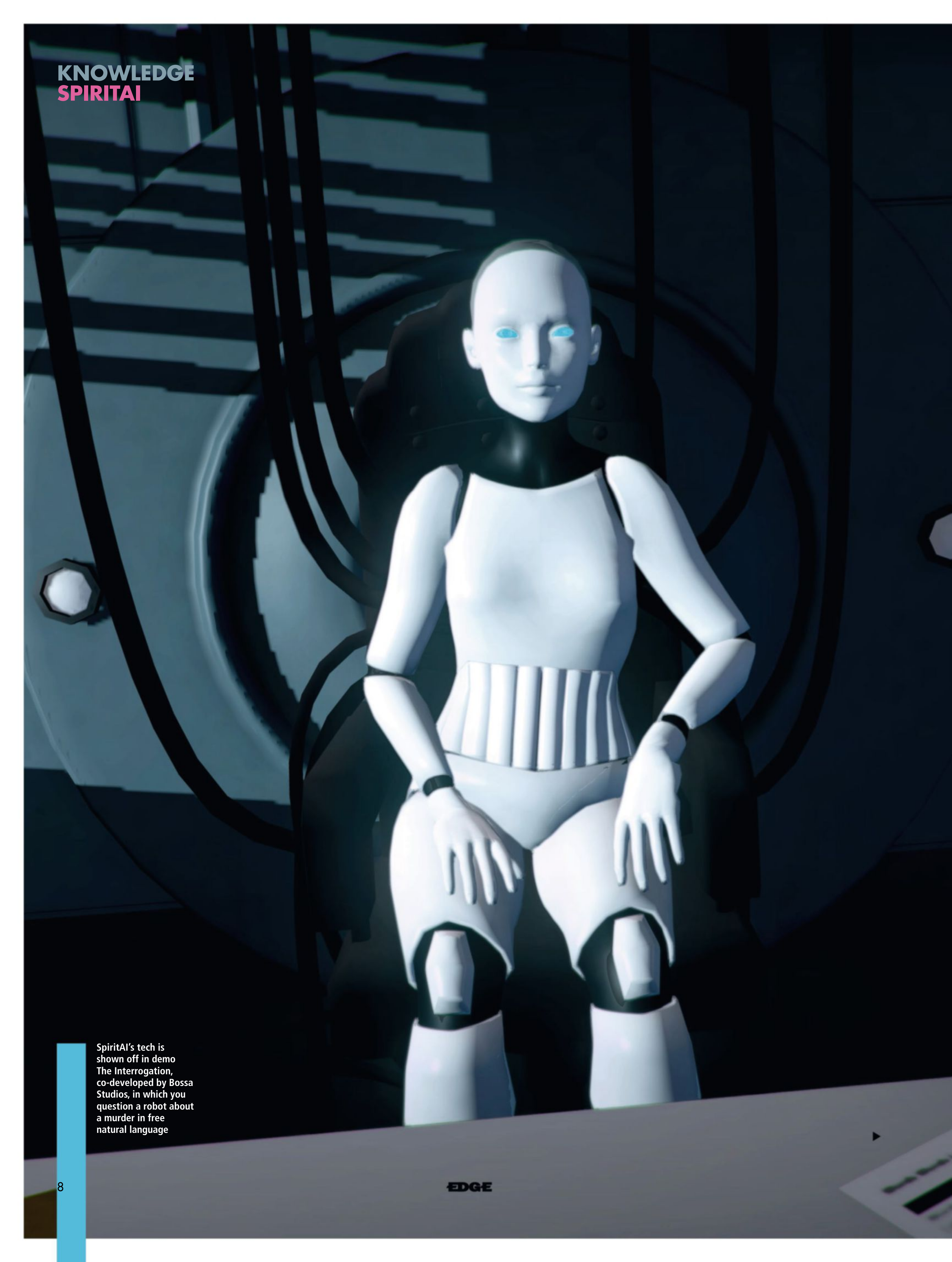
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SpiritAI's tech is shown off in demo The Interrogation, co-developed by Bossa Studios, in which you question a robot about a murder in free natural language

Machine language

One startup's quest to use AI to bring game dialogue to life

Of their two biggest promises, videogames have pretty much delivered on one. Huge and diverse worlds filled with detail to discover and things to do are now common, even expected. But the other promise, that of getting to interact with characters that respond naturalistically to your every word and action, is still lagging behind.

The NPCs you meet in games are the same scripted talking heads that they've always been. Some games are written better than others, but in comparison to the visually opulent and systemically deep worlds in which they stand, NPCs are wooden, their various conversational gambits constricted into series of dialogue trees in which you lose all of the freedoms you enjoyed in the wider world.

One new tech startup is hoping to use AI to help solve the problem of NPC dialogue. SpiritAI's aim is to create dynamic conversations that feel like speaking to autonomous characters, responsive to what you express and ask, and willing to offer their own points of view. SpiritAI has developed various technologies called Character Engine, which includes natural-language classifiers, speech-to-text analysis and keyword examination to interpret what players are trying to say and to construct responses by modelling emotion and the character's knowledge about the world.

"OK, the far end of this is passing the Turing test, right? If it's done and complete and perfect, then it talks like a person," says **Emily Short**, who manages Character Engine, having long been a leading figure in interactive fiction as a writer and co-developer of various text-adventure engines. "And no, we're not there yet." But, she says, Character Engine is standing on a road of iterative development that will figure out how to create naturalistic NPCs that are more fun and interesting to encounter in a game.

"OK, the far end of this is passing the Turing test, right? And no, we're not there yet"

For SpiritAI co-founder chief creative officer **Mitu Khandaker**, the challenge comes down to how much data the system has to work with. "How big are the natural-language classifiers? It's mostly just a data problem, and how you're authoring the responses." Khandaker was previously the indie developer behind *Redshirt*, a sim of a social network aboard a space station that tasked players with moving up the social ladder, before becoming an assistant arts professor of game design at New York University. For her, Character Engine is about allowing writers and narrative designers to craft specific stories with autonomous characters acting within them.

Its first demo was revealed at GDC earlier this year. Called *The Interrogation*, it has players talking to a Scottish robot, trying to figure out whether it's guilty of a murder. Co-developed with London-based developer of *Surgeon Simulator* and forthcoming MMO *Worlds Adrift* Bossa Studios, you can type – or in the VR version, simply speak – your questions, and she'll respond, revealing details about other characters and their relationships and the events during the ▶





Emily Short (top) heads SpiritAI's Character Engine; Mitu Khandaker is the firm's co-founder and creative director

FOUNDING STORY

SpiritAI was co-founded by Steve Andre, previously a senior vice president in sales at IBM. His focus was on Watson, IBM's AI-driven natural-language technology, and, being a keen gamer, he approached Khandaker to help him explore the potential for natural language technologies for games. Early versions of SpiritAI's tech were built on Watson, but the team found it too closed a platform to give them the flexibility they needed, so they developed their own natural-language classification systems. They raised $2 million in funding last year, and, with a set of partners for Ally and demos established, are about to embark on raising more.

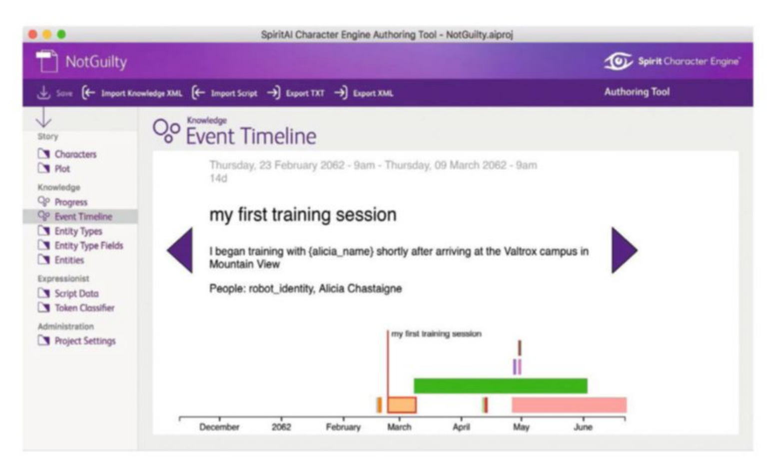
killing. As you delve, the robot's emotional state changes, expressed in the UI and by its voice inflection and stutters, and you can manipulate it to provoke different responses. You can make it anxious or angry by moving the viewpoint closer or using threatening or insulting language, and you can put it at ease by moving away and being kinder.

The Interrogation plays a little like a dynamically driven *Her Story* – or, more directly, Galatea, a celebrated piece of interactive fiction that Short wrote in 2000 which presents a surprisingly naturalistic conversation with a statue. "We were looking to dig into whether we could create the sense of a continuous conversation in which new information is unfolding and you get a sense of making an emotional difference to a character if you're mean or nice to them," says Short. "One of the big objectives I had was to let the player participate in a conversation. I feel your standard dialogue tree is constraining, right? You have this choice of two-to-four options and it's not fun to re-play. There's no room for style or personality."

Character Engine works through writers giving NPCs two sources of information, a 'script space' of words and phrases the NPC can say and a knowledge model, which is information the NPC knows about the world. In *The Interrogation*, the robot knows the height and weight of the characters she mentions; if you ask her whether Alicia is strong, then the system can use that information to surmise an answer without the writer needing to specifically note it.

In many ways, the magic in Character Engine lies in design and writing, rather than the technology itself. "The demo is a difficult design problem because it's a scenario where the robot is trying to be evasive, but at the same time, players don't know what to ask and how to interact with it," says Khandaker. The system has to therefore seed the ongoing conversation with pointers and clues as to what to ask.

On its surface, the demo seems utterly freeform, but underneath it's carefully structured using Character Engine's



Character Engine's scripting system allows writers and narrative designers to set up a 'script space' of information and dialogue, such as a timeline of events a character knows about. The system then allows them to improvise within that space, responding to the player's input in a natural, organic way

authoring tools, which can make particular pieces of dialogue available or unavailable depending on the scene or stage in the conversation the player has reached. The tools give the chance to give NPCs certain narrative beats to hit or facts they have to reveal, and triggers for points at which the scene will end, whether through timers, reaching certain emotional states or relating certain bits of information.

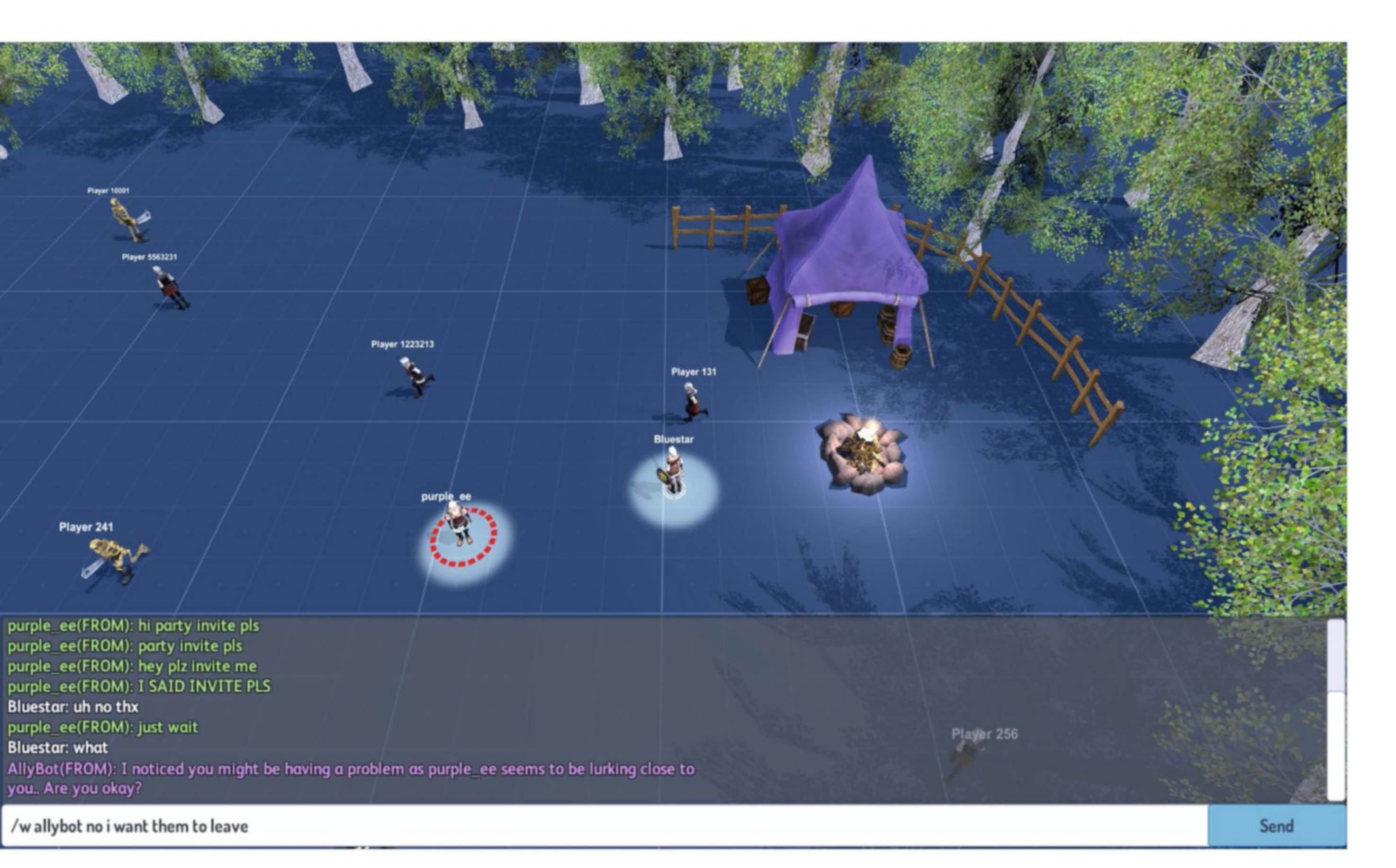
For Short, authoring a Character Engine NPC is a little like scriptwriting, in the sense that it makes a writer think first about motivation and dramatic structure before the words themselves. But the tools are being developed to be highly adaptable, so developers can be as rigid or free as they want to be, and to use whichever components they like. It can even generate on-the-fly multiple choice dialogue options rather than rely on players inputting natural language.

"But the idea is making it so the moments of constraint are the rarity and most of the time the player has more flexibility," Short says, though she's not aiming for Character Engine to live up to the dream of the holodeck – of entirely immersive virtual worlds that correctly interpret and respond to players' every interaction. "Fundamentally I don't believe in that," she says. "Not even in the sense of whether we can actually do that, but in a design sense. Would that be a satisfying and enjoyable thing?"

> "The idea is the moments of constraint are the rarity and most of the time the player has more flexibility"

For her, Character Engine is for games, and when players don't have direction they get paralysed with uncertainty. "It'd be like constantly being forced to be on an improv stage without being trained. I'm not so much interested in making it so you can never find the boundaries, it's more like, can we make nice, smooth edges so when you encounter them they redirect you in a way that feels natural? As a player, if you run out of ideas, the NPC pulls you back into the storyline, but you still have a level of freedom you don't get in a lot of current game structures. That's what I see as the sweet spot."

For SpiritAI, Character Engine is a foundation, but its technology can do more. As she began to explore the potentials of what it means for a bot to understand what a player is saying, Khandaker realised that it could also be used to address another issue facing videogames: a rather more pressing one, of online harassment. If it can examine what players are saying, what they've



Ally, SpiritAI's online safety service, is being trialled; here its helper bot is integrated with an off-the-shelf Unity MMO package to demonstrate how it recognises potential social problems

previously said and also watch player-to-player interaction, it can identify toxic player behaviour.

Ally is a set of tools that does just this, which SpiritAI has already begun releasing to beta partners to begin using with their live data. One demonstration, built to test the SDK only, shows a player following another and bombarding them with party requests. Ally notices the number of requests and the proximity of their avatars and chats to the potential victim: "You seem to be having a problem; are you OK?" That person can then respond in natural language to say yes or no, whereupon the bot can take action on an offending player, muting them or banning them as appropriate to the game's policies, or simply shutting up.

"There are lots of parameters," says Khandaker, acknowledging the fuzzy and inconsistent nature of online interactions. "Are they upset by *anyone* doing this, or just this particular person? It asks questions to understand, and it then learns from that for the future. Our boundaries are very different in different situations, right? We are OK with dodgy language when it's people we know sometimes, but not when it's a stranger."

The aim is to support moderators and GMs, who can be dealing with thousands of support tickets a day, and the level of engagement is up to the developer, whether the bot talks directly with players or merely flags up potential issues for human mods to look at. Developers are also able to write a character for the bot, just as they might an NPC, so its interactions fit into the game's world.

And it doesn't have to be an enforcer. It can also identify positive behaviour, rewarding or supporting helpful players. Either way, Ally could help shape healthy player communities so they become safer places to play, in whatever way devs deem to make sense for their game.

SpiritAI's focus on natural language and bots follows an explosive growth in the field. Bots on Tencent's WeChat social network, for example, dominate the way people in China manage social services and query information on their phones, and they're growing on Facebook, Skype and other platforms in the west, too. It's therefore following a general trend in developing natural-language technology, but is focused on using them to make games better, richer and safer places to play. Once upon a time, **Edge** asked, "What if you could talk to the monsters?" That question, it seems, is finally close to being answered. ■

Wintory's coming

The Grammy-nominated composer on becoming the busiest musician in games

Five years later, the emails, Facebook messages and Instagram posts are still arriving on a daily basis; **Austin Wintory** happily acknowledges that his work on Thatgamecompany's *Journey* was a career turning point. "I feel extraordinarily grateful," he tells us. "I've had composer friends and colleagues who've had very successful careers but have never had an experience like that, where something became so personal to people that it's something they're excited about years later, that they've built into the fabric of their lives."

Wintory was 24 when he signed up to score *Journey*, and 27 when it came out. After the fact, it dawned on him that he'd spent more than ten per cent of his life so far working on the game, and he suggests he got "freakishly lucky" with the way circumstances led his own musical journey to closely mirror the game's own narrative. "You are probably going to change as a person considerably in that span," he says. "Hopefully, you're a more deeper thinker or a more mature person; hopefully there's positive growth. I certainly aspire to that."

Wintory wrote *Journey*'s score in sequence, so the themes you hear at the beginning of the game were composed much earlier than those at the end. "And it really was, significantly, an earlier part of my life. I mean, I was recently out of college, and my career was very much in its embryonic stages." As *Journey* began to take shape, Wintory's music became a reflection of his own personal development. "The end-credits aria, I Was Born For This, is reflective of the very different place I was at in my life. I was very lucky that, metaphorically, the game is supposed to feel like one's early life and then one's later life. And I was living a microcosm of that in parallel." As such, he was able to draw on his own life experience for inspiration. "That," he says, "is just insane, dumb luck."

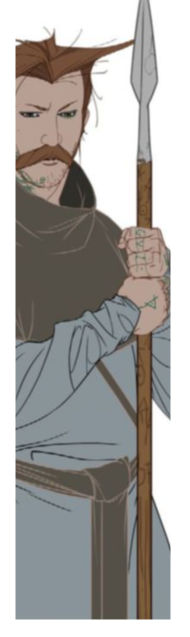
The process was a transformative one for Wintory, teaching him that living a full and varied life would give him a greater range of experiences from which to draw. As a result, his work since has seen him capitalise on *Journey*'s success not by trying to repeat the formula but by pursuing more diverse projects. The years since have been an eclectic ride for Wintory, from the brassy, big-band themes of *Leisure Suit Larry Reloaded* to the earthy, mournful tones of *The Banner Saga* via the playful, piano-led ragtime of *Monaco: What's Yours Is Mine*. Now, he's working on striking multiplayer brawler *Absolver*, about which he's palpably excited (see Martial artist).

> "Clearly I try to turn myself into a kind of gelatinous blob and let people thrash me around for a bit"

This, to put it mildly, is a composer willing to take any opportunity to step outside his comfort zone, the challenge of trying new styles is clearly important to him. That stems, in part, from a lifelong passion for the work of Jerry Goldsmith. "He scored hundreds of films and thousands of episodes of television, and the thing I always found so incredible about his work was that through all of these shifts in genre, and surface-level storytelling, he never stopped being Jerry Goldsmith," Wintory says. "His canon of music is extremely stylistically diverse, and yet it's never mistakeable as anyone but him."



When he's not composing, Austin Wintory studies evolutionary biology and astrophysics. For fun, obviously



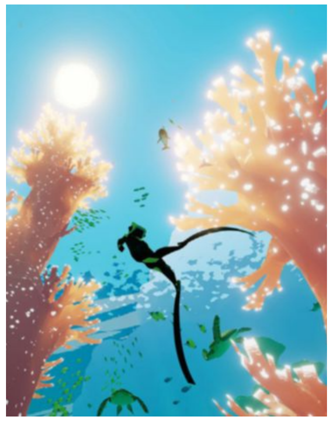
Where then, we wonder, does he find inspiration when scoring games that might be less directly analogous to real-life experiences, like Ready At Dawn's cartoonish arena brawler *Deformers*? "Well, clearly I try to turn myself into a kind of gelatinous blob and let people thrash me around for a bit. I'm all about method composing!" he laughs, before explaining that there's always a raw source of inspiration. Sometimes, it can be just a single word. "In the case of *Monaco*, I remember the director Andy Schatz said, 'I want the game to feel naughty,'" he recalls. "That was the exact word he used, and I loved that, because 'naughty' is like a cousin of mischievous, [rather than] cunning and subversive. This isn't a heist game about master thieves who would step over the dead body of their own grandmother. 'Naughty' suggests a far lighter tone, almost like kids getting away with a little petty crime. And I'm not a thief, but I can channel experiences like that from when I was a kid for a [similar] emotional takeaway."

Though he's become close friends with some of the studios he's worked with (he claims *The Banner Saga* developers could ask him to work on "a *Words With Friends* knock-off" and he'd happily agree) it's the pursuit of new creative avenues that drives him most. "The simplest way to put it is: will this let me write music that I feel like I've never really written before?" he says. "Will this let me explore ideas I haven't previously had occasion to?" Whether that means the music playing the role of narrator or taking more of a backseat to the action matters little to him. "I'm not trying to make games or films this 'vehicle for my musical expression'," he says, self-mockingly. "Being a participant in the process is ultimately my core passion." ■

Wintory's soundtrack for *Journey* was nominated for a Grammy award. "Everything to do with *Journey* is just one 'I can't believe that's real' after another"

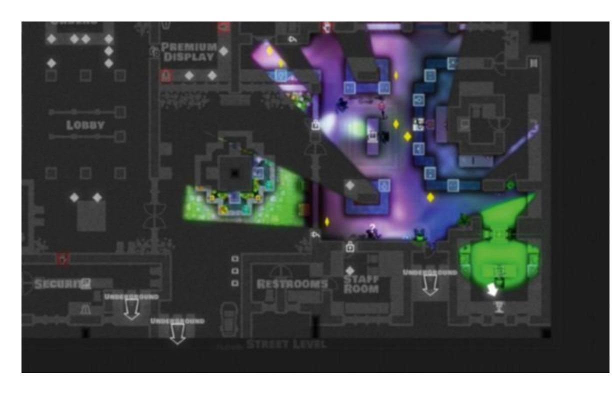


Wintory likens *Absolver*'s principle of friendship through combat to the dynamic between Rocky Balboa and Apollo Creed



Abzû saw Wintory reunite with *Journey*'s Matt Nava. "The friendships I've developed tend to be with people who make interesting games"





ABOVE ***The Banner Saga***'s score unfolds dynamically during the combat sequences. RIGHT **Wintory scored stealth-action game *Monaco: What's Yours Is Mine* soon after *Journey***

MARTIAL ARTIST

The eclectic influences behind Wintory's Absolver soundtrack



We ask Wintory if he can give us some hints on what to expect from his *Absolver* score. Ten minutes later he's still talking, covering everything from musical clichés in martial-arts movies to the Darwinian model of evolutionary biology. Director Pierre Tarno has, he says, let him be experimental with the score, which means you'll hear banjos played with a Coke bottle cap, but in keeping with the theme of respectful competition there will be "an undercurrent of compassion. That's probably the best I can offer given the adage that talking about music is like dancing about architecture," he smiles.

Spatial awareness

Can videogames follow in the footsteps of history's greatest science-fiction artists?

The space race of the '50s and '60s was more than just a triumph of engineering – it instilled in the public a sense of optimism about humanity's future and transformed the earliest astronauts into instant celebrities upon their return to Earth. While their feats were inspiring enough in their own right, they had some help in stirring up public fervour. Some of that help came from unlikely places, like the visual artists who, by collaborating with scientists and engineers, were able to depict a plausible vision of humanity's future among the stars.

According to Dr Jeff Norris, a team lead at NASA's Jet Propulsion Laboratory, one of the most important of these speculative artists was an American painter named Chesley Bonestell. Throughout his career, he created images that inspired the American space program, and even collaborated with the legendary aerospace engineer Wernher von Braun.

Norris sees that same potential to inspire public thought about space travel in the medium of videogames. In February, he gave a talk at the DICE Summit in Las Vegas challenging game devs to pursue this objective, and enlisted the help of Vancouver-based developer Blackbird Interactive to create a proof of concept to accompany his talk.

What emerged was *Project Eagle* – an interactive Mars-colony simulation built upon the foundation of Blackbird's previous title, *Homeworld: Deserts Of Kharak*. "At first, NASA was thinking of doing something a lot smaller in scope than what *Project Eagle* turned out to be," Blackbird CEO **Rob Cunningham** tells us. "Jeff's first idea was, 'Maybe you guys could do a little 360-panning painting or some kind of little VR thing,' and we were like, 'Well, why don't we just build a full-on Mars base?'"

To stay true to the spirit of Bonestell's work, Cunningham found that there were two crucial elements that the team had to pay close attention to. First, *Project Eagle* had to be accurately reflective of the actual science and engineering going on at NASA. "Like Chesley's work with Wernher von Braun, our work was informed heavily by Dr Norris and his team at JPL," Cunningham says. "Every time we were designing a building or positioning something for *Project Eagle*, we would constantly be in touch with the JPL team to bounce ideas off them."

> "The physical shape of the Gale Crater and the textures we were using were all sourced from NASA spaceships"

Cunningham points to a variety of ways that the design of *Project Eagle* was shaped by NASA's input, from the depth of well required to reach water on Mars' surface, to the size of the game's communications arrays, and the nature of the material that habitation modules were constructed from. "All of the terrain data came from NASA as well," Cunningham adds, "so the actual physical shape of the Gale Crater [the location on Mars where NASA's Curiosity rover landed, and the setting of *Project Eagle*'s colony] and the textures that we were using were all sourced from NASA spaceships, which was awesome."

The second hurdle for Blackbird, if it wanted to live up to the high standard of Bonestell's work, was to present a speculative vision of future space travel that was covering new ground. "Our first designs were very much the stuff you might recognise from The Martian or whatever, where it's little rovers and inflatable hab modules, and it kind of looks like igloo outposts. As we started getting into that, it occurred to Aaron Kambeitz, our chief creative officer, that while this was cool, it really wasn't Chesley Bonestell-level cool – it wasn't anything that no one had seen before."



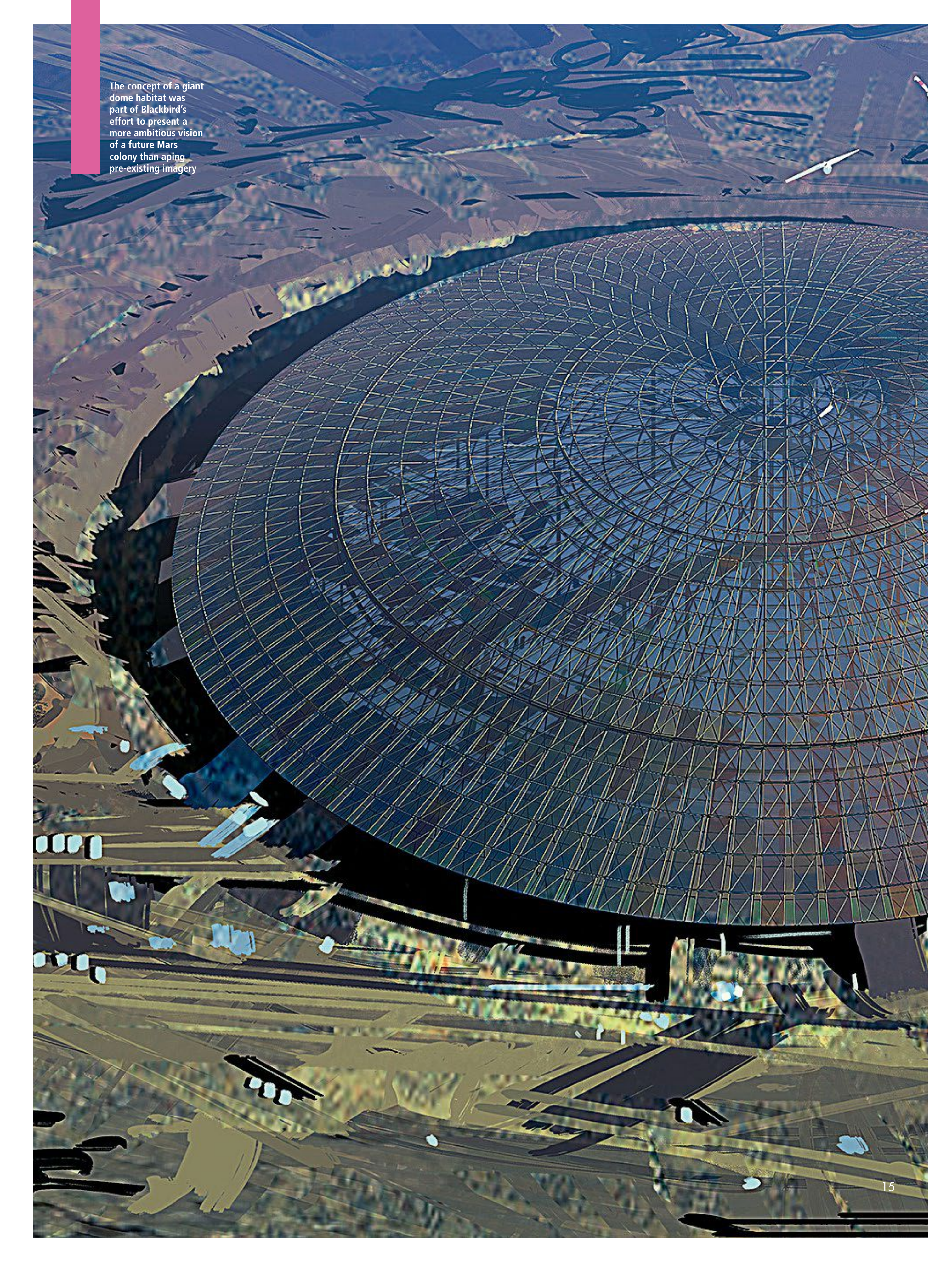
Rob Cunningham, founder and CEO of Blackbird Interactive

MULTI-TASKING
Both Cunningham's team at Blackbird and Dr Norris's team at NASA JPL had to work on *Project Eagle* in between their other responsibilities. Since Blackbird worked on the project entirely for free, it was squeezed into evenings and weekends, around the studio's more conventional development tasks. NASA, naturally, was similarly embroiled in its core mission throughout the process. "When they're not talking to us, they're giving instructions to the Mars Curiosity rover – these were the actual engineers working on stuff, and it was really fun," Cunningham says. "We'd be bragging about how we just had another Skype call with NASA, while at NASA, they had a machine with a monitor set up in the middle of the room at JPL Ops with the game up and running. It was pretty cool."

To meet that ambition, the Blackbird team had to reconsider its timeline. The original plan was to set *Project Eagle* in the 2030s, but to fully explore the concepts Cunningham and team had in mind, they pushed the setting later, finally settling on the year 2117. One of the big ideas this allowed them to explore was the 'megadome', a far larger structure than what's usually depicted in hypothetical Mars colonies.

"If you're going to have a permanent outpost on Mars, there's got to be some sort of place where people can stretch their legs and breathe in some fresh air and get an actual enclosed, safe, but open area, so that's where [Kambeitz] came up with the dome. The logic was that we wanted to build a base that was like the beginning of a bit of a civilisation."

In the span of a single month, Blackbird managed to bring *Project Eagle* from novel idea to finished product, ready to show off at DICE. Time will tell whether the studio will inspire the public the way its predecessors did, but Cunningham says the reaction has been overwhelmingly positive so far. Whether it becomes a freely-available public demo, or evolves into a full-blown commercial game is still, Cunningham says, to be decided – but we rather hope he, like those that have come before him, will choose to reach for the stars. ■



The concept of a giant dome habitat was part of Blackbird's effort to present a more ambitious vision of a future Mars colony than aping pre-existing imagery

Above the noise

Why the inventor of shaders is convinced that VR and AR are the future of reality

Computer scientist **Ken Perlin** invented graphics technologies in the early 1980s that we take for granted in games today, including shaders and Perlin noise, an algorithm routinely used in procedural generation. With an ambition to make the digital medium more naturalistic, he became a professor and founder of institutes and labs in media and computer science at New York University, Now he's deeply involved in developing mixed-reality technologies, on which he'll be delivering a keynote at the Develop conference in July.

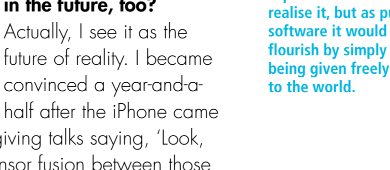
What did you invent Perlin noise for?
I was at a company called MAGI and we worked on Tron in 1981. Tron was wonderful except for one thing. My inspiration for entering computer graphics had been seeing Fantasia, but Tron was clearly a very machine-like aesthetic, dictated by software limitations. I wanted to do things that could express nature, so I developed a number of techniques. One of them was the general-purpose framework of running a computer program at every pixel, which we now call shaders. Running things like sine waves looked too regular, so I looked for a primitive that would allow me to insert controllable randomness. It's similar to picking a paintbrush; the individual bristles will be in some random configuration but you know what's going to happen when you paint with it.

> "I guess everything I did, and I did lots of things, showed up again when it was fast enough for realtime"

Did you foresee all the kinds of ways those functions are used today?
I was doing those things with shaders in 1984, except it would take an hour per frame. The first time I saw [shader building tool] Shadertoy at Siggraph 2013, I had this very weird feeling. I was so happy to see these kids in their early 20s doing these things. I was seeing things I'd done 30 years earlier, except now running in realtime.

I have a tendency to do things that everybody uses years later. Moore's law says that computers will be faster and cheaper at an exponential rate. But in computer graphics there are two peaks to the curve. One is when rendering takes one or two hours a frame, and then it goes into movies. When it gets down to less than a 60th of a second then it goes into games. I guess everything I did, and I did lots of things, showed up again when it was fast enough for realtime.

Does your work on mixed-reality technology mean you feel that's going to be pervasive in the future, too?
Actually, I see it as the future of reality. I became convinced a year-and-a-half after the iPhone came out. I started giving talks saying, 'Look, we can do sensor fusion between those little IMUs [motion sensors] and the camera in iPhones.' And take the 1851 invention of the stereoscope. If we just follow Moore's law, in 2022, 2023 it's going to be cheap, pervasive, and wide-angle, very high resolution and framerate, tracking exactly where you are. I did research projects where we showed what that world would look like, using Kinect to track drawing in the air with a finger and then superimposing that in realtime.



Children will put these on when they leave the house in the morning; at that point computer graphics will be part of the world, not something you look at screens to see. I became concerned that if we don't get a handle on what we do with this, large companies are going to start throwing their stupid interfaces in our faces and we'll be stuck with them. I started developing a series of software to create a sense of a human-friendly world when you're wearing these glasses, as opposed to companies selling you stuff. We have to think about ethical issues, the aesthetic, privacy issues.

How do you see people using this tech?
It should be about being with other people; in fact, with people in the room with you as an extension of your physical self, not a replacement for it. We spent the first 50 or 60 years of the computer revolution becoming separated from our physical bodies because of the limitations of computers, and now we have the chance to become integrated with our bodies again. We're not going to push our agenda of people being together from a research lab at a university, so we spun off a company, Holojam VR, to create economically self-sustaining examples. It's been used for art pieces, all sorts of things, but the low-hanging fruit is games. We've done a whole bunch and currently we're focused on playing in a virtualised version of the room, wearing Vive headsets and MSI backpacks. A year from now, those backpacks will be gone and it'll be lightweight, and in five years game-like experiences will be one of the interesting things people will do together. But they won't be thinking about hardware. The endgame for these things is that they'll just be games, because we'll think of the glasses as just reality, just the way a television, newspaper or window are. ■

TECHNOLOGY FREE
Despite inventing technologies that are now foundational to computer science and gaming, and all the countless billions of dollars that they must have helped generate, he didn't patent shaders or Perlin noise. "No, and it's a good thing I didn't," he says. "I totally gave it away. I copyrighted it so people wouldn't make wrong versions of it, but I didn't charge for it." It's not that he's against patenting, and part of the reason was the technology's legal relationship with his then-employer, MAGI. "I don't think in terms of making money, I think in terms of how my children thrive, and it's a different rule for each thing." If it was hardware technology, then patenting would've helped to secure the capital needed to realise it, but as pure software it would flourish by simply being given freely to the world.





One of Perlin's current projects is Holojam, a mixed-reality system for existing VR platforms that's founded on the principle of people using it together in the same room to play and create. "Why do we want to be in this alternative world? The answer is because we want to be with each other," Perlin says











If it wasn't enough to invent shaders and Perlin noise, Ken Perlin also helped to pioneer the zooming and stylus-based computer interfaces



Each area contains characters, objects and locations that you must 'resolve' by interacting with them. Solving puzzles or engaging in conversations raises the fidelity of an area, which triggers your ability to retell a portion of the story



TELL TALES

Grinning Pickle is building a towering game on the foundations of a jam

The developers of *Totem Teller* are fascinated by the ideas of degradation and recomposition. These themes run through the entire game, which sees you exploring a broken world as you attempt to excavate and reconstitute the stories that record its journey to this point. Ironically, even the game's striking visuals were inspired by poor image quality. "The glitching and digital artifacts begun when, very early on, I made some test animations as GIFs," explains artist and designer **Ben Kerslake**. "I loved what compression artifacts do to imagery in general, so we pursued that line more broadly. It also overlaps nicely with the concept of information – in our case, a story – being degraded in its telling or transmission."

The game plays a little like a point-and-click adventure, though players have direct control over the central character, while the ultimate act of "retelling" the stories found in each area is represented by bespoke puzzles.

Totem Teller originally came into being during a one-week game-making challenge. The result provided the foundations on which Kerslake and coder Jerry Verhoeven have built a larger-scale project. "[The original inspiration was] simply to make something that was about the joy one feels exploring a new place – be it a city or a patch of wilderness," Kerslake tells us. "*Totem Teller* still embodies that core value."

The plan is for a 2018 release on console and PC.

Soundbytes

Game commentary in snack-sized mouthfuls



"Someone told me, 'You're not indie.' Fuck off! I make games on my kitchen table with my **bare fucking hands**. How much more indie do you need to be?"

Maybe a bowl-cut hairdo and an album of obscure Elliott Smith covers would help, **Brenda Romero**



"I don't think **free-to-play is going to be as dominant** [in VR] as it is on mobile. I think there will be more of a balanced mix."

Thank heavens for that, ex-Rovio GM **Oskar Burman**



"Go back to *Words With Friends*. Devs were like, "Oh, it's just Scrabble on a phone. Yeah, exactly. **The best things are just X meets Y**."

Quite right, **Cliff** 'Miyamoto meets Blink-182' **Bleszinski**

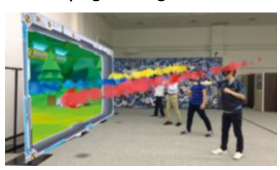
"This incredibly talented team got it done, despite the fact that a lot of them, including me, **didn't really know what they were doing**."



We feel like that every four weeks, *Halo* designer **Jaime Griesemer**

ARCADE WATCH

Keeping an eye on the coin-op gaming scene



Game *Hado Shoot*
Manufacturer Meleap

Japanese startup Meleap has been around for a while – it launched *Hado*, an augmented-reality game of six-player PVP fireball-flinging, back in 2015. Powering its tech is a combination of AR headset and wrist-mounted motion sensor, enabling players to act out the Ryu power fantasy in (almost) real life. It's a popular installation piece with its own tournament scene – but with Japan's arcade industry increasingly embracing virtual reality and its related technologies, the firm is stepping up a gear.

The latest fruit of that endeavour is *Hado Shoot*, a fourplayer game played on a huge display projected onto a wall by the AR headset. Waves of cutesy mushroom people – a sort of non-threatening chibi take on the enemies that mill about in *Dark Souls*' Darkroot Garden – appear and, if not dispatched quickly, will walk out of the screen towards you. Flinging multicoloured projectiles, players compete to see who can dispatch the highest number of fungi within a time limit. Further gentle competition comes from items that appear during play – and, naturally, from the way players can interfere with each other in the real world in order to impair a rival's score in the virtual one.

While the need to free up a large section of empty wall may be off-putting for many arcade owners, the fact that the game runs on smartphone hardware (it clips into the AR headset) reduces the investment significantly. To date, it's been largely found away from the arcade, at shopping malls, convention centres and even Tokyo's Narita airport. But that's changing, and the tech is also beginning to spread overseas, with appearances at recent VR conferences in the US.

My Favourite Game
Nicolas Hamilton

The racing driver on moving from virtual tracks to the real thing, making games, and achieving his dreams

Nicolas Hamilton is a racing-car driver who currently competes in the British Touring Car Championship. He was the first driver with a disability to compete in the series – he has cerebral palsy – and is the brother of three-time F1 world champion Lewis Hamilton. While his career is well established now, it all started with videogames.

What game first got you excited?
The one I can remember the most is playing *Rock N' Roll Racing* on the Megadrive when I was about five or six. It was my favourite game at the time. I got into the *TOCA Race Driver* series when I was in my teens, and learned how to use manual gearboxes and all that sort of stuff. I loved the career mode – that was a big thing for me. I got more and more serious, and then one day a demo of *GTR* dropped through my door and I started my own virtual career using that game.

How did that come about?
The game was just in a paper packet, and I pulled it out and put it in my computer and at the time I only had a joypad, so I just used that. I really enjoyed it, and I got more into it and went out to buy a really cheap steering wheel that I clamped onto my desk. I just spent hours improving my lap times, and then I started researching online racing and whether that was possible. I found a website called racedepartment.com and it opened my eyes to the full-blown world of sim gaming. I contacted one of the team managers, Ollie Wickens, and he was like, 'We're looking for drivers.' So he set up a server and I had to go and set lap times and try to show how good I was. Because I'd only just started, I was pretty terrible, but he ended up really helping me out and taught me all the bits and bobs of how to be fast in online sim gaming. We ended up entering the British championship a couple of years after and I won that one just using buttons, which is crazy. We became good friends, and I helped him get a job in Formula One, and now Ollie is my manager for my real racing career. It's pretty crazy how the story links up.

CAREER MODE
After winning the GTR British championship online, Hamilton made his real-life racing debut in the 2011 Renault Clio Cup United Kingdom. His first season became the subject of a documentary, titled Racing With The Hamiltons: Nic In The Driving Seat, commissioned by the BBC. Hamilton moved up to the European Touring Car Cup in 2013, before starting to drive in the British Touring Car Championship in 2015. But while his racing career is flourishing, Hamilton hasn't forgotten his roots, and has worked closely with Slightly Mad Studios on both *Project Cars* and its forthcoming sequel.



How did you manage to make the jump?
My brother suggested that I should try it for real. So I went to a driving school and drove a BMW M3 for the first time. I ended up a second faster than the instructor. We couldn't really believe it, because of my legs – we didn't think it would be possible. So we went back a week later to see whether it was a fluke, and I did the same thing again. Three months later I was in the Clio Cup and it developed into a career from there.

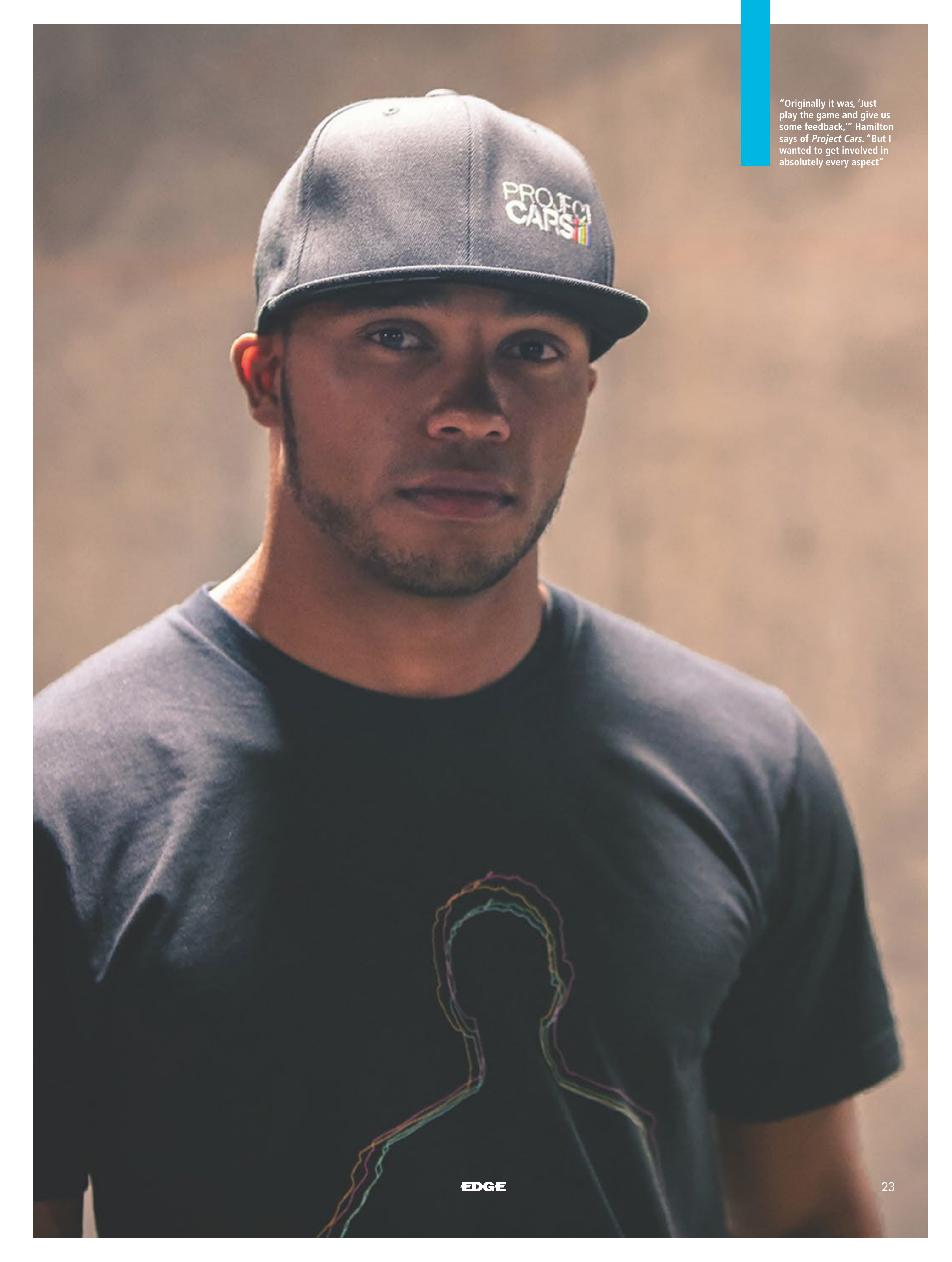
"I always wanted to be a part of developing a game because games were what I lived for"

And how did you end up working with Slightly Mad on *Project Cars*?
I always wanted to be a part of developing or creating a game because games were what I lived for at that time. I came up with this idea for a game where you start in karts and work your way up the different categories, and originally it was going to be based on Lewis's career; you'd have to achieve what Lewis achieved. I only had one industry contact at the time, and that was Codemasters. So I got in touch and pitched my idea, and they said, 'Have you heard of *Project Cars*? We'll put you in touch…' So I emailed Slightly Mad Studios and luckily they were looking for someone to help develop the physics modelling and car handling at that time. They asked if I would be part of the team, and I bit their hand off! The rest is history and I've been with them for five years now.

You mentioned using a cheap wheel earlier – presumably your home setup has now improved?
Yeah… right now I have a Playseat Evolution rig, with a Fanatec CSW2 steering wheel and ClubSport V3 pedals. And I use VR a lot – mostly the Rift – too.

And what's your favourite game?
It's got to be *LA Noire*.

We weren't expecting that.
[Laughs] It's a game I got absolutely addicted to. I thought the concept of it was fantastic, and the detail in the game… I thought it was so advanced for the time it was released. I was *so* sad when I completed it, and I really wanted them to bring out a sequel. I rarely play any game other than *Project Cars* these days – I struggle to find the time to play anything else – but while it's difficult to choose just one, *LA Noire* has to be my favourite game of all time. ■



"Originally it was, 'Just play the game and give us some feedback,'" Hamilton says of *Project Cars*. "But I wanted to get involved in absolutely every aspect"



WEBSITE
Australian Pokémon
bit.ly/AUpoke

Paul Robertson, the animator and pixel artist who worked with Tribute Games on *Mercenary Kings* and who has contributed to all manner of high-profile projects including *Scott Pilgrim*, The Simpsons, and Gravity Falls, has now turned his attention to Pokémon. Rather than simply pixelate Game Freak's existing creatures, however, Robertson has instead created an entire Australia-themed Pokédex from scratch – he's even included evolutions. Highlights include Sidnee, whose armoured back resembles the Sydney Opera House; Caramell, Fredo and Berty, who are all half-unwrapped chocolate bars; Bogg, Shitta and Dunnee, who take on various lavatorial forms; and the frankly nightmarish Dedorse, a zombie steed emerging from a bubbling pool of blood. An utterly charming bunch.



VIDEO
Kazutoshi Iida
bit.ly/tocoiida

Doshin The Giant creator Kazutoshi Iida is the focus of episode 52 of YouTube series Toco Toco. The ongoing project interviews Japanese creatives about the places in Japan that inspire them. Iida picks the Rissei Cinema Project, the Kyoto Art Center, and Ritsumeikan University (where he now teaches). During the tour, however, we get to hear about how he got into the videogame industry, his recollection of creating his first two games – *Aquanaut's Holiday* and *Tail Of The Sun* – and why *Doshin The Giant* was his last game. There's also a glimpse of Iida's extensive personal games collection.

WEB GAME
Topsoil
bit.ly/soilgame

Created by Seattle-based designer and programmer Nico Prins, plant-themed puzzler *Topsoil* has more than a whiff of Spry Fox's *Triple Town* about it. You must plant and grow flora, taken from a continuous conveyor belt of options, then harvest your work for points when a trough turns up. Grouping plants of the same type yields more points, but harvesting your crop will also change the colour of the soil beneath it, continually breaking the garden apart and changing the space you have to play with. Every so often you'll be given various seeds to plant, which will take a number of turns to grow into high-scoring flowers or trees – though at the cost of taking up a space for longer. If your garden fills up, it's game over. It's pleasant, if simple stuff, but you'll still need to plan ahead to reach the big scores.



THIS MONTH ON EDGE

When we weren't doing everything else, we were thinking about stuff like this

DESK
Aerodesk
bit.ly/aerodesks

It's all very well sitting in some monstrously over-engineered gaming chair, bathed in the garish light emitted by your keyboard, but if the heart of your setup is some cheap flatpack desk you're letting the side down. Thank goodness, then, for Aerodesk, which is thoughtfully offering to relieve you of £5,295 –plus VAT, mind – so that you can replace your low-tech table with something more appropriate. The Gaming Desk can be used seated or standing, and features a subwoofer sound bar, a 5500 Kelvin light bar that can recreate daylight or offer mood lighting, and two spots that either heat or cool your drink. Absurd, yes, but you know you want one.



continue

Mass effect
PlayStation UK is an excellent sponsor for London's Pride 2017

Nintendow Jones
The house of Mario's share price hits a nine-year high

Universal credit
SpatialOS creator Improbable raises $502 million in funding

Unsensored
Microsoft's headset-tracked VR controllers promise no more sensors

quit

Trip wired
An issue deadline *and* an E3 diary to fill? Wonderful

Melta
A flight delay with no air-con sours our visit to 4A Malta. It's a hard life

Switchboard
Hori's *Splatoon* headset suggests Switch voice chat will be miserable

Prey station
Arkane adds *Prey* Pro support, but wrecks the framerate in the process

TWEETS

Disappointed that OGL ES still doesn't have texture lod bias as a texture or sampler parameter. Helpful to avoid aliasing with trilinear.
John Carmack @ID_AA_Carmack
CTO, Oculus

I just realized it's probably okay to make a relative pointer variant for arrays and strings, such that the pointer can never be null.
Jonathan Blow @Jonathan_Blow
Creator, *The Witness*

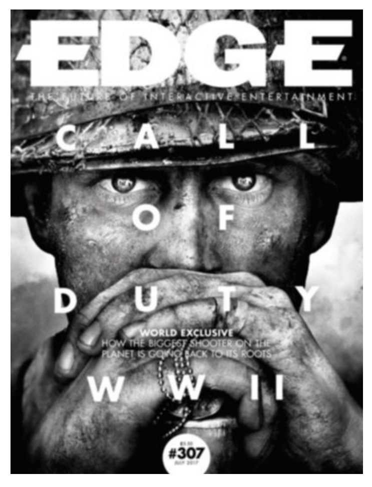
Quickly pushed the mower round before we head off for the beach :)
Jeff Minter @llamasoft_ox
Creator, *Polybius*



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DISPATCHES AUGUST



Issue 307

Dialogue

Send your views, using 'Dialogue' as the subject line, to edge@futurenet.com. Our letter of the month wins a year's subscription to PlayStation Plus, courtesy of Sony Interactive Entertainment



PlayStation Plus

My desire

It's exciting to hear that even for Nintendo, their new hybrid console is exceeding expectations, so much so that they've even revised sales forecast targets. The biggest indicator to me of this unforeseen success is undoubtedly the drip-feed of software, as opposed to the full-on wave of experiences to try out. I concede, the games are coming and **E**306 piqued my excitement a lot for *Arms*. But c'mon, a few more would be nice.

To compensate, there has recently been a lot of outcry for Nintendo to fill out some of the Switch's release schedule gaps by updating and remastering Wii U titles that the vast majority of gamers didn't have the chance to experience last time. And while this is all well and good for those that chose to wait out the Wii U's life cycle, I can't help that feel that for those who didn't, Nintendo is doing a major disservice.

The likes of *Mario Kart 8 Deluxe* and *Splatoon 2* aren't going to do much to appease the Wii U purchasers who were there when Nintendo needed them most, so if the storied videogame company is going to do right by them, an alternative resolution should be found, right? The most sensible workaround could be for Nintendo to introduce something like a Wii U Ambassador Programme, echoing the way in which the company rewarded early 3DS adopters who were left a little short-changed following a swift price hike for that system. What do you think, **Edge**?
Aaron Potter

We're assuming the announcement of *Pokken Tournament DX* did nothing for you, then? While we take your point, there's a host of excellent Wii U games that never got the audience they deserved. There are few finer ways to pad out the schedule until the real big guns arrive.

Nobody better

It's June 2017 and I'm writing this during what seems to be something of a crossroads moment for fighting games. *Rising Thunder* was bought by Riot a year ago. We haven't heard anything since then. *Fantasy Strike*'s alpha, by David Sirlin, is hardly getting any hype. Meanwhile, *Street Fighter V* is getting slack for being 'too easy'.

Now I've won my fair share of fighting-game tournaments, so this is not me complaining that they're too hard. I am instead simply pointing out that there has always been a lack of fighting games that focus less on technical skill and more on strategic acumen. I've been playing *Clash Royale* for a year, and this has proven what I (and Seth Killian and David Sirlin) have been saying for years: competitive games are just as exciting when there's no barrier to entry. *Rising Thunder* let you do special moves without the typical inputs, and combos were a cinch. It was every bit as exciting as *SFIV* while it lasted. *Fantasy Strike* is even easier, and considering the excellence of *Yomi*, *Puzzle Strike*, and *Chess 2*, I have complete faith in Sirlin's next product. But I fear it won't even make it to *Evo*'s lineup.

> "Competitive games aren't only a test of skill, but of being able to out-read your opponent"

That is, unless people understand that many competitive games aren't only a test of skill, but can also be a test of being able to out-read your opponent. In fact, I would argue that the mind games that go back and forth between players are the best part of competition. I'm not saying that *Guilty Gear* or *Street Fighter* have to change. But I am asking for folks to change their notion of what a fighting game can be like.
Robert August de Meijer

While this sounds perfectly reasonable in theory, we were surprised at how quickly we tired of *Rising Thunder*. And seeing a top player pull off a 30-hit combo in a high-



www.facebook.com/edgeonline
Discuss gaming topics with fellow **Edge** readers

pressure situation is a delight. Perhaps the genre's complexity is a bigger part of the draw than we thought. In any case, we hope *Arms* will prove that the two ends of the spectrum needn't be mutually exclusive.

Tingles

To the naked eye, when you see me out and about, you won't notice anything out of place, any physical disability, any sign of, 'Jeez, he's messed up on the inside.' And that's because to see me in the street is to see any other person: I appear normal, at least to some degree. The reason you don't notice even a grimace when my knees have started screaming is because I will simply grin and bear it; I tell myself, 'Carry on regardless, this is your problem and you're going to have to deal with it.'

And after a week of devastation and reuniting, I'm certainly not the only one who carries on regardless. Some people use songs to heal; others use raw emotion. I use games. Many things are thrown at gaming in general: all those unfounded claims of 'too much violence' and 'games are bad for you' wind me up. All points made by outsiders – people who haven't touched a games console in their lives, only seeing things from an outside view. 'Why are kids playing 18-rated games? Bad parents!'

You might assume gaming is nigh-on impossible with this disability. It nigh on is, to be perfectly honest, but I carry on regardless. The only reason I can play games is that I'm so occupied when doing so that I forget the majority of the agony I'm in. By being focused, stimulated and socialising with friends that I wouldn't be able to in real life, my soul is healed on the worst of days. Be it the exciting multiplayer of the *Call Of Duty* franchise or the endless addiction of time trial on the *F1* and *Dirt* games, I am free of my problems. No arthritis. No epilepsy. No non-existent social life. I'm immersed and happy, something I can't say of my experience of any other media platform. Only gaming can heal me fully.

And that's the truth. Videogaming is unrivalled in its ability to stimulate, focus and immerse someone in another world. For the 'outsider' to change their mind, maybe we should sit them down with *No Man's Sky* or *Overwatch*, and see whether they can't help but smile.
Charlie Ridgewell

Heartfelt stuff, Charlie – many thanks for getting in touch, and we're relieved to hear we're not the only ones who use games as a refuge from the horrors of the real world, though you've given our own problems some much-needed context. We will return to the swollen **Edge** mailsack with renewed vigour.

Oh boy

Alright, enough. I'm done. I don't care how good it looks when you open it. I don't care how it sounds as the lock pops open and the contents spill out. And I don't care what's inside, either, despite the beams of light and joyful fanfare that suggest I should be beside myself with glee. I am sick of loot.

It used to be fun. I played a bit of *WOW*, and some *Diablo III*, and it was a refreshing way of making me want to keep playing. When you find a pair of magical trousers with flames coming off them that do poison damage to anything that gets too close to you, well, how can you complain about that? In isolation, you can't, but when you're getting magic-poison-fire trousers in every game, it's not so exciting.

Suddenly it feels like every game I play has a loot system of some kind. I love *Overwatch*, but the more I play it, the more it feels like it's a game about collecting costumes for virtual action figures that just happens to have one of the best multiplayer games of all time inside it. Some of the group I play with have spent hundreds on attempts to get a new skin for their favourite character, and since the system's random, they've often failed. It sours the game for them – a game that, for my money, is perilously close to perfect. Without loot, it might be, though I suppose it would make less money, and that's all that really matters.

In *Diablo III*, it felt novel. In *Borderlands* and *Destiny*, I could dig it. But by the time *The Division* came around I realised I was tired of the gear grind, but now I look at my PS4 library and it's just everywhere, from *Alienation* to *Injustice 2*, *No Man's Sky* to *Tekken 7*. Well, no more. From this day forth I will have a zero-tolerance approach to videogame loot. A brilliant game should be reward enough by itself. Everything else is just a flaming pair of silly trousers.
Steve Dyson

We'd love to agree with you, but that would mean waving goodbye to such office staples as *Destiny* and *Puzzle & Dragons*, which we're afraid simply isn't happening. We hope the next 12 months of PlayStation Plus bring you plenty of loot-free fun, though.

Just gets better

I love the cryptic clues you leave on the last page of each issue to show what the cover of the next one will be: the tip of the Master Sword in **E**303? *Breath Of The Wild*, obviously. The sad assortment of shoes and belongings in **E**301? Schindler's Li- I mean, *Little Nightmares* was on the way. And there was no mistaking that black belt at the end of **E**288.

So at the end of **E**304, you have a silhouette of a tottering tower in a forest and I strolled into the newsagent a month later expecting to see *Edith Finch* on the cover, and instead there's a smug child and a fox for no *Rime* or reason?

C'mon guys. We're just lucky we live in an enlightened Internet age where this sort of thing doesn't incite wild overreactions.
Shaun Smith

The next-issue page doesn't always tease the following month's cover – often it's something we're excited about elsewhere in the mag. But thanks for not expressing your displeasure through death threats. We get quite enough hate mail as it is. ■



STEVEN POOLE

Trigger Happy

Shoot first, ask questions later

Videogames are good for you, right? Everyone seems to agree. The Theme Park co-designer and DeepMind AI entrepreneur Demis Hassabis was recently on Desert Island Discs, and explained how he uses games to improve his cognition. "I think you can learn a lot from them. In business or in life there are not many times you can practise, in a safe way, ideas or strategies, or develop your own mind. So I find games are a little bit like a gym for the mind. So I've used games, boardgames and computer games, to train my own mind."

Such talk is perfectly tuned to elicit curiosity and a lowering of the barriers of prejudice from that segment of the Radio 4 audience not itself familiar with videogames. Videogames are good for the brain! Well, of course, it stands to reason: if they make the brain work hard, that must have positive effects, just as working your muscles hard in a gym makes them more bulgy. Hmm, maybe those Nintendo addicts aren't just screen-dazed zombies after all.

This sort of argument has been going on for a while, at least since the science and culture writer Steven Johnson published a book called Everything Bad Is Good For You in 2005. That attributed the general rise in IQ levels over the past few decades (also known as the Flynn effect) to increased consumption of videogames and complicated serial-TV box-sets. However, it was based on mere correlation. The UK's consumption of bananas had also increased during that period, and potassium is known to be good for the brain, so why not give banana-eating the credit instead?

Unfortunately for the games-are-good-for you thesis, there is very little scientific support for it. Formal investigations of brain-training games in particular — which you would expect to improve general cognitive skills better than any kind, if it were possible — repeatedly find no evidence that they do. A Florida State University study earlier this year found that improving working memory in memory games resulted in little to no "far transfer": that is, improvement of memory in other tasks. "It's possible to train people to become very good at tasks that you would normally consider general working memory tasks: memorising 70, 80, even 100 digits," said lead researcher **Neil Charness**. "But these skills tend to be very specific and not show a lot of transfer. The thing that seniors in particular should be concerned about is, if I can get very good at crossword puzzles, is that going to help me remember where my keys are? And the answer is probably no."



Illustration kaeru.com.ar

Potassium is known to be good for the brain, so why not give banana-eating the credit instead?

Given the repeated null findings for brain-training games, it may very well be true that playing videogames of any kind — whether it's *Dear Esther* or *Sniper Elite* — produces no lasting increase of any kind in general cognitive skills. But then why should that be a surprise? The old stereotype of the chess grandmaster who is forever forgetting where he put his keys encapsulates a real truth. Becoming skilled in one domain does not mean you are better skilled in all. And this doesn't mean that chess or videogames are a waste of time.

So maybe it's time to think more politically about why people who admire this medium feel the need to defend it in this way. I suspect it's a symptom of a more general culture in which any kind of activity that is not explicitly geared to economic exchange must be justified by an appeal to some other productive purpose that it allegedly has. Thus, videogames improve our brains. And thus, humanities scholars periodically announce that the study of literature is valuable because it increases our empathy towards people who are not like us. (Never mind that, notoriously, the Nazis adored 19th-century German poetry and music.) In general, university degrees are now valued not for their intrinsic value in terms of mind-expanding education, but simply according to how well they help students get jobs afterwards.

We are, then, living in an age ruled by what Adorno and Horkheimer decried as "instrumental reason": when all intellectual activity is subordinated to concrete practical or economic effects. It has become frowned upon to defend any cultural activity in terms of the pure joy it affords. However, to do this is to assert our humanity, and our right to a kind of pleasure that has no ulterior motive. We should insist that we love videogames simply because, like all art, they are perfectly useless.

Steven Poole's Trigger Happy 2.0 is now available from Amazon. Visit him online at www.stevenpoole.net



NATHAN BROWN

Big Picture Mode

Industry issues given the widescreen treatment

Like the rest of you, I expect, I was shocked by the news that Square Enix was looking to offload IO Interactive. After all, the Danish studio has spent the past few years making, releasing and then continuing to make perhaps the best *Hitman* game of them all. It got an **Edge** cover in 2015 and an **Edge** 9 in 2016, but in 2017 the studio that makes it is being cast aside while Square Enix focuses in on what it calls "key franchises and studios" – a phrase that roughly translates as "things connected to *Final Fantasy*" and will have subsidiary and partner studios twitching nervously every time the phone rings in the weeks to come.

Square Enix is certainly keen to offload the studio. Reports claim it's letting IO keep the rights to *Hitman*, and it was prepared to slap a loss of almost £34m on its accounts to get the studio off its books. As I write, it is doing the things publishers must in these circumstances – wishing the studio all the best while trying to find it fresh investment – but IO has already had to lay off a chunk of its staff and, if no buyer is found, things may reach their natural, unpleasant conclusion.

The instinctive reaction in situations such as this is to blame the publisher. We did it when Activision shut down Bizarre Creations, when Sony dropped the shutters on Evolution and when Microsoft killed off Lionhead. It's always easier to blame the bigger boy, especially when he just put the makers of some of your favourite games out of work. And the publisher must bear a share of the blame for the creative and financial missteps that ultimately condemned the studio to failure. Square Enix will have signed off on *Hitman*'s bold episodic structure: indeed, after the unexpected success of *Life Is Strange*, it may have positively encouraged it. So it must share the blame for *Hitman*'s evidently poor sales. On PC, according to the reasonably reliable tracking site Steamspy, it sold around 620,000 copies. According to the same website, *Absolution* sold a shade under three million.



Illustration **kaeru.com.ar**

> It's always easier to blame the bigger boy, especially when he just put the makers of your favourite games out of work

For it was surely the structure, rather than its indisputable quality, that did for *Hitman*. There are a few strands to this, I think. First is that the episodic approach to releasing games, that felt so novel when Telltale told its heartbreaking tale of surrogate parenthood in *The Walking Dead*'s first season, is no longer so appealing. The main culprit in that has to be Telltale itself. The studio's business model is an immaculate, but wearying confluence of being able to crack out an episode in a matter of weeks while also being unable to say no to any offers. And so it is positioning itself as a sort of HBO of games, if Band Of Brothers had animation glitches, The Wire was prone to hard crashes, and Game Of Thrones would occasionally forget your progress and punt you all the way back to the first episode. Telltale popularised the episodic videogame and, by being at once increasingly prolific in its output and dismally stagnant in its technique, may well also have killed it.

Yet we're probably to blame too – and by that I don't mean the royal **Edge** we, but you and me, and mostly probably you, because I get everything for free anyway. I am just being polite. Despite Telltale's best efforts, as a game-playing public we remain largely unaccustomed to games being parcelled up in this manner. When the first episode of a TV show appears, we happily take a punt on it, because doing so costs nothing but time. But a game costs money, and when only part of a whole is on offer, we cannot see the entirety of the expected-value equation. So we hesitate. And if we're not in on the ground floor, we'll probably skip the next couple of episodes too, and see how things shake out.

Unlike Telltale's work, however, IO's *Hitman* improved greatly over the course of its season. It had its peaks and troughs, sure, but the final result is a game that benefited hugely from its developer's ability to implement the lessons it learned from the reception to earlier episodes into the making of the later ones. Sadly, once the finished article is available in one package, we feel as if we've missed out; we who play games are in constant pursuit of the new, so when *Hitman*'s complete season dropped onto shelves in January, it was already old, and too easily ignored. This story should give us all pause for thought: about our attitude to episodic games, about our relentless pursuit of the new, plus – and this applies to Square Enix too – about the extent to which we really value quality as a measure of a game's worth. I wish everyone at IO all the best.

Nathan Brown is ***Edge****'s editor. Next issue's column will be released one paragraph at a time over a 12-month period*

Syberia 3

B.H. SOKAL













#308

H Y P E

THE GAMES IN OUR SIGHTS THIS MONTH



Explore the iPad edition of **Edge** for extra Hype content

Generation game

Procedural generation's appeal is obvious. A technique that enables developers to offload labour-intensive processes to an algorithm, which randomly throws together objects, characters and even entire worlds from a set of component parts, seems to benefit creator and player in equal measure, offering bigger, more varied games. Yet these days we sense that players are hankering after some traditional, hand-crafted magic. To developers, however, the allure of the procedural algorithm remains.

That's certainly evident in this month's Hype line-up. Leading the charge is *Middle-earth: Shadow Of War* (p50), which reprises the delightful Nemesis system of its predecessor *Shadow Of Mordor*, one of the few games to truly sell paying customers on the idea of procedural generation. Nemesis felt like an idea that would be copied far and wide; that may not have come to pass, but there's a good whiff of it in *Extinction* (p52). Iron Galaxy's brawler pits you against a series of colossal ogres, whose procedurally generated looks change the flow and feel of every fight. And it's a fundamental building block of *Fortnite* (p42), Epic Games' long-in-development game of block-building and headshotting.

Those for whom the very phrase is a turnoff, however, need not worry. Ever since the launch of *Destiny* in 2014, Bungie has been working to make its game less random and more predictable, and while expansions to the base game have steadily improved the whole, *Destiny 2* (p36) is a fresh start for both the game and its maker. It'll still have RNG loot drops, admittedly – those of you hankering after something purely hand-made would be better off heading straight to p56 for *Bloodstained: Ritual Of The Night*. *Castlevania* legend Koji Igarashi would, you'd expect, hold little truck for the notion of letting an algorithm help him design another of his maddeningly crafty castle adventures. His legions of fans wouldn't have it any other way.

MOST WANTED

Everybody's Golf PS4
We wondered quite what was going on with a game we first played 18 months ago. Turf War, a realtime scrap over a nine-hole course you can move around freely, may not quite justify the lengthy wait, but it's got us more excited than ever for the latest instalment of the breeziest, most likeable golf game around.

Super Mario Odyssey Switch
Since we're sending this issue to press three days before boarding the flight to E3, we're giddy with anticipation at our first sit down with *Mario*'s weirdly realistic open-world adventure. By the time you read this, you'll know all about it, so tell us: is it any good?

Pyre PS4
No-one mixes genres quite like Supergiant. After *Transistor*'s sublime blend of RTS and RPG comes this ambitious hybrid of RPG and competitive sports, which seeks to examine the nature and consequences of failure more deeply than other games dare. Review next issue, foul play notwithstanding.



H Y P E

DESTINY 2

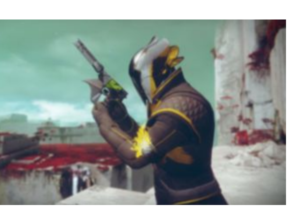
Bungie hits the reset button on the most confounding FPS in the galaxy

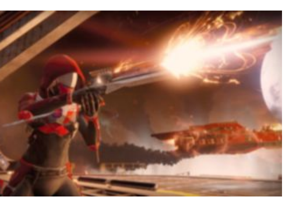
Developer Bungie
Publisher Activision
Format PC, PS4, Xbox One
Origin US
Release September 8

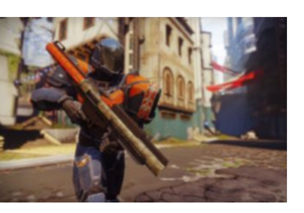
EDGE

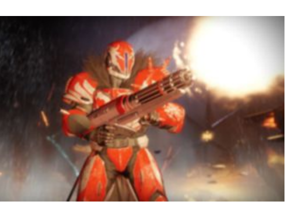


Lance Reddick's Commander Zavala was sorely underused in the first *Destiny*, but he and his fellow Vanguard are key players in the attack on The Tower that kicks off the story campaign in *Destiny 2*









In addition to the returning weapon foundries – Hakke, Omolon, Suros, Tex Machina – is Veist, a manufacturer that, for now at least, is shrouded in secrecy

The number says it all: after three years and four paid expansions, *Destiny* is finally being supplanted, rather than merely extended again. This was, game director **Luke Smith** admits, a difficult decision to make: after all, his beloved *World Of Warcraft* has never spawned a sequel, just a succession of expansions, and many expected *Destiny* to do the same. Since its muddled 2014 launch, the game has surely improved a lot – but it is still muddled. It started out confusing and has become even more so; the game currently contains more than 5,000 items. "You want to try and balance that PVP game?" executive producer **Mark Noseworthy** asks. "It's just an albatross."

Yet the decision was driven only in part by technical concerns. At the heart of the decision to make a *Destiny* sequel is the recognition that the game that launched in 2014 was difficult to get into, as marvellous as it was once you managed it. "If we keep extending *Destiny* forever," Smith tells us, "it gets to this place where it becomes a burden to want to play. I have a brother-in-law I just couldn't *give* the game to. It was like giving someone a wedding ring. I love this game; I've played 2,000 hours. But it's a relationship."

Smith is sanguine and self-deprecating about those 2,000 hours. He describes his vault full of loot as "a collection of memories, and a box of a million little shames". But he, like everyone else who has sunk significant time into *Destiny*, has seen friends walk away from the game, and he's been stung by it. He sees *Destiny 2* as an opportunity to recruit a brand-new audience, of course. But it's also a chance to lure those lapsed players back.

"The thing that matters to me and the team is the opportunity to bring everyone back together. To say, 'Dude, that game you haven't been playing that I've been loving for the last two years? They made another one, and we can all start together.' There's this MOBA me and my friends play, and when a new person comes into our group and starts playing we're like, 'OK, talk to us in 100 hours.' *Destiny* is more truncated than that, sure, but we wanted this moment where everyone could come together, and start again."

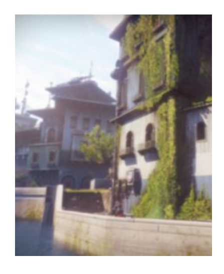
Destiny 2 it is, then. Yet this is no simple matter of putting a number on the end of another *Destiny* expansion. Everywhere you look, something has been changed significantly: some elements have been overhauled and others merely streamlined, but the net result is a game that feels familiar, certainly, but fundamentally new. That, as it happens, is pretty much the guiding principle in Bungie's efforts to fix the original game's biggest flaw. How do you solve a problem like *Destiny*'s story?

"You start from the standpoint that people know nothing, because we told them almost nothing," Noseworthy says. "There are a number of people – hopefully millions! – for whom this will be their first time playing *Destiny*. We have to start from nothing, quickly give them the universe premise, introduce the characters and fill in the holes that we left. If you know some stuff – if you read all the Grimoire cards or whatever – it's even richer for you."

> ***The net result is a game that feels familiar, certainly, but fundamentally new***

The action begins with the Cabal Red Legion assaulting the Tower, the last standing city on Earth and the first *Destiny*'s main social hub. They steal the Traveler, the giant looming sphere that grants the power of Light and has turned humans into infinitely respawning Guardians. Suddenly homeless and stripped of their power, humanity must begin again, spreading out through the European Dead Zone area and forming new settlements; the members of the Vanguard, a trio of powerful Guardians who served as quest-givers in the original game, have decamped to different planets. There's your set-up: find humanity a new home, seek out the members of the Vanguard, reclaim your Light along the way and eventually take on the Red Legion leader, Primus Ghaul.

Taken in isolation, this is merely the latest in a three-year-long line of what Smith affectionately calls *Destiny*'s "Monster Of The Week stories". Yet within Bungie there is recognition that that alone is no longer enough. "As individual pieces, those stories ▶

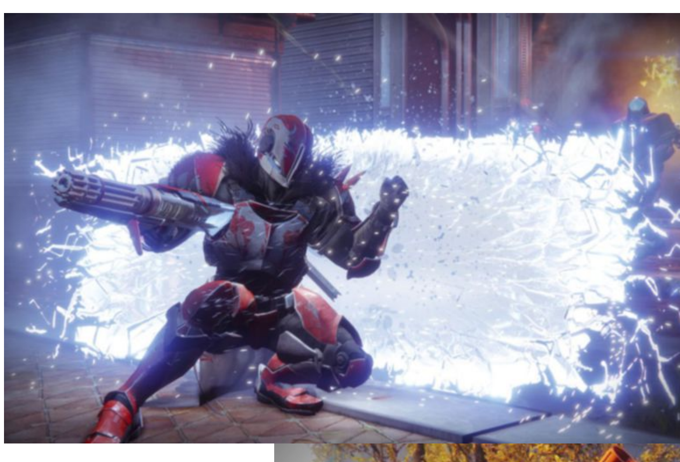


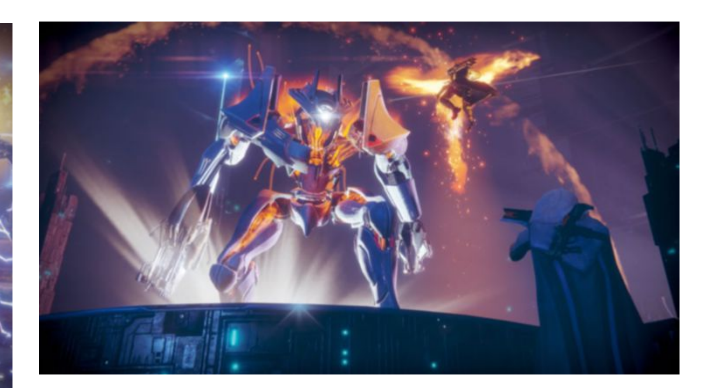
New ground

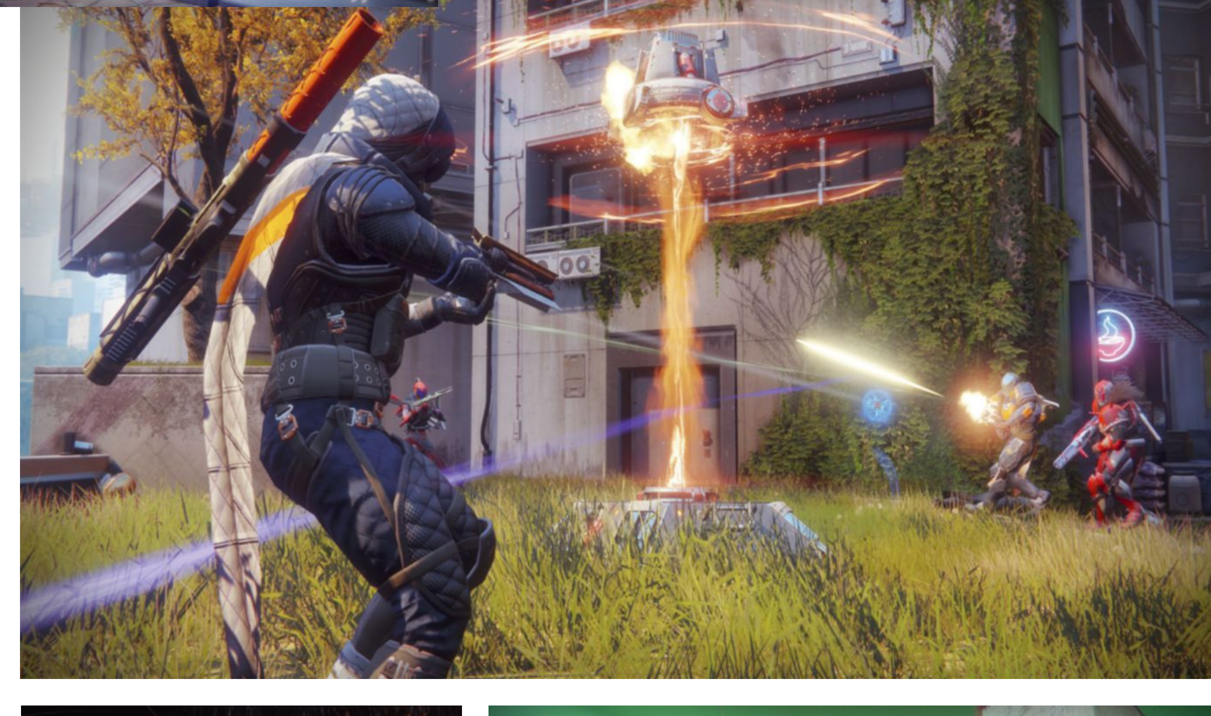
The assault on the Tower means we lose our home, our gear and our powers – but must we also say goodbye to the first game's battlegrounds? While Bungie promises that *Destiny 2*'s staging – the European Dead Zone on Earth, plus Io, Nessus and Titan – will be its biggest creations to date, why can't we also return to Venus and Mars? "We talked about this a lot," Smith says. "There's this logical dissonance to it: Mars is still there. But if Mars was on stage today, people would be like, 'Oh, recycled content.'" The team aren't ruling out a return to previously visited planets later on – though not to the same locations. In the meantime, those of you pining for the Venus air can thank those portions of the game-playing public who decry any sequel that carries over existing content as *Game Name 1.5*.



ABOVE **The Inverted Spire strike spans a huge expanse that looks delightful on console, but even better on PC. Uncapped framerates and 4K resolution are not, however,enough to persuade us to play *Destiny 2* on mouse and keyboard. It still feels perfect on a controller.**
LEFT **Ikora Rey (played by Gina Torres) never left her desk in the first game, yet within minutes here she's flinging a Nova Bomb at a passing Cabal ship. Whether we'll get to use the classic Warlock super is, at the time of writing, still unconfirmed**







ABOVE **The Titan's deployable shield has two forms: one is big and can block off paths, while the other reloads the equipped weapon of any ally that takes cover behind it.** TOP RIGHT **This fellow may look as if he stepped right out of a *Destiny 1* mission, but even returning enemies have been subtly tweaked. Weedy Psions, for instance, now wield sniper rifles.** MAIN **If Countdown doesn't appeal, modes like Control and Clash will return. Bungie currently thinks of the PVP experience in terms of moods, suggesting you'll be able to choose between competitive and relaxed matchmaking in Crucible.** BELOW LEFT **Dawnblade is certainly a departure from *Destiny*'s Warlock Sunsinger subclass. Self-resurrection always seemed like a design nightmare, in fairness.** BELOW RIGHT **The Inverted Spire has you jump into these portals, which fling you across the arena. Seen in a couple of *Destiny* PVP maps, they were always a curious absence from PVE**







are great. But where are they going? Nowhere. *Destiny 2* starts off and you think it's going to be another Monster Of The Week story: bad guy shows up on time, knocks you out and kicks you off. But *Destiny 2* is the beginning of something else."

Indeed, Smith and the senior team have mapped out a story arc spanning several games, with events in *Destiny 2* planting the seeds for events that may not come to pass for years. Naturally, he refuses to get too specific. Yet his handling of one of the most overused words in *Destiny*'s lexicon shows that Smith and Bungie are, at last, thinking of story in the long term. "I am aggressively removing every mention of Darkness from the game," Smith says. "All of it. It's gone. It's not a game about darkness. It's a game about light. If someday we want to tell you a story about darkness, the word needs to go away, so that when it is reintroduced, it matters."

The new Strike, The Inverted Spire, is among the best of this type of content Bungie has produced, set over a vast, vertical expanse, full of smart design and spectacle, and culminating in a heart-pounding boss battle that's split over three phases, the mechanics and environment of the fight changing each time. It's the highlight of the day, but that's not to take away from the bombastic campaign mission, pulled from the start of the game and depicting the Cabal's assault on the Tower, or new PVP mode Countdown, a riff on *COD*'s Search & Destroy.

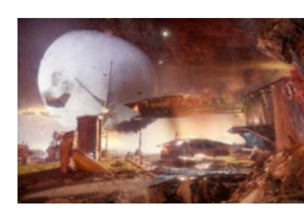
PVP itself has been greatly changed, and not just by the switch to 4v4, which Noseworthy plausibly explains as being intended to make the game a little slower and more readable. That claim is backed up by a slight increase in time to kill, and in a redesigned HUD, which shows every player's subclass and how close they are to their Super. The screen-corner kill feed now alerts every participant when a player pulls ammo for one of the newly designated power weapons – which now not only includes those formerly known as heavy weapons, but problematic secondaries such as shotguns and sniper rifles too – and precisely which kind of weapon it is. The other two weapon slots have been relabelled Kinetic and Energy; both will contain the same types of gun, but those with elemental properties are limited to the Energy slot. It's a slight, but potentially transformative change, acquiescing to players who've been crying out for the return of elemental primaries in PVE (which were all but outlawed in *The Taken King* after proving all-conquering in *Destiny*'s first year) while reducing the usability of the PVP game's most troublesome weapons.

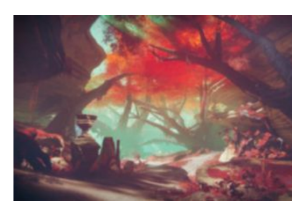
Such changes will, if all goes to plan, be invisible to the swell of new players Bungie hopes to attract to *Destiny 2*. Yet the first game attracted its share of curious players too, only to lose a chunk of them to the endgame: if it wasn't the loot grind that did for them, it was the necessity to assemble a six-person raid team every week. Such players have long cried out for matchmaking for *Destiny*'s toughest content, but Bungie has always resisted, knowing how dreadful groups of strangers can be to each other online when things aren't going their way.

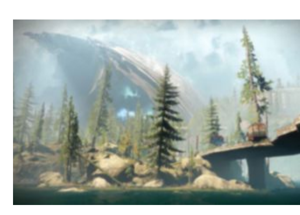
"I am aggressively removing every mention of Darkness from the game. It's gone"

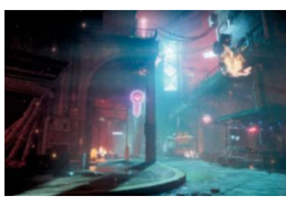
The solution, Guided Games, might be *Destiny 2*'s secret sauce. In combination with a new in-game clan system, it will allow lone wolves to join up with experienced teams – something that was previously available on external sites thanks to Bungie's passionate community, but is now finally in the game client and should do a better job of retaining the type of player who drifted away from the first game's stringent team requirements.

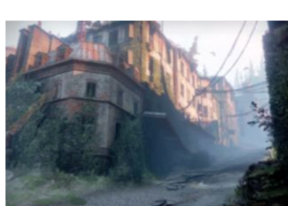
Crucially, it also works in reverse: those of you who, like us, have dozens of raid clears under your belts will know only too well the pain of losing a member of your group to a sudden interruption. Noseworthy's first child was born shortly before *Destiny*'s launch, and so Dad has bailed on his fair share of teams. Smith, as he often does, sums it up perfectly. "For as long as people have been playing games – whether it's board, video or otherwise – the hardest boss to kill has always been Schedule Boss." It just got a little easier. ■











Bungie's art teams have done typical wonders with Destiny 2's new worlds. Most gratifying is a peek (second from bottom) at what lies behind the Tower door that's been closed since 2014



According to its creative director **Darren Sugg**, the long-in-development *Fortnite* has become "a mirror for the evolution of Epic as a whole". The game began life as an Xbox Live Arcade project during the heyday of so-called Epic 3.0, that middleware behemoth in thrall to a couple of premium action series. Seven years later, it will launch as a flagship title for Epic 4.0: a digital publisher with its own desktop app, a focus on indirect monetisation and five projects underway simultaneously, propped up by the enduring Unreal Engine business and a $330 million investment from Chinese juggernaut Tencent. It's perhaps in keeping with the theme, then, that *Fortnite* feels undecided, caught between eras and traditions – both a cooperative survival shooter and a freeform construction sim, a pastoral toybox and yet another free-to-play content treadmill.

In a presentation at Epic's Berlin offices, Sugg summarises the game as a love letter to playing at castles with your friends as a child, conjuring up ramparts and turrets from bits of discarded timber or sofa cushions. Publicly available from July 25 as a paid-access trial ahead of a full release in 2018, *Fortnite* sees up to four players combing procedurally generated levels for odds and ends to smash together into structures, then defending their rickety creations against undead spawned by a global maelstrom that has killed off most human civilisation. Between trips to these levels, you can also expand and outfit a permanent outpost, which serves (along with character levelling) as the backbone of your *Fortnite* career – host players are able to restrict editing privileges here, but when you're out on a mission, anything goes.

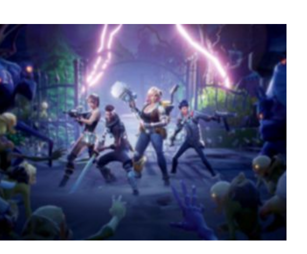
In a familiar turn for nostalgia exercises of this kind, the game borrows an aesthetic from the pop Americana of the '80s. Its modestly sized landscapes, split between industrial, rural and suburban biomes, are a welter of pizza parlours, coin-op arcades and Saturday-morning-cartoon mineshafts, dotted with wacky oblong candy dispensers and fizzing neon signs. It's an earnestly and, at times, laboriously comedic spectacle, reminiscent of PopCap's *Plants Vs Zombies*. Destructible objects wobble like jelly when struck, zombies shamble into battle dressed as baseball pitchers, and you can expect plenty of inane banter from a bumbling robot accomplice.

The aesthetic fosters a spirit of slapdash improvisation, but this is a fantasy soured by the game's reliance on drip-fed unlocks and busywork – a deluge of X-of-Y bonus assignments, random gear drops of different rarities, skill points to invest, NPC survivors you can 'equip' to boost various stats and, inevitably, loot crates, which can be earned in-game or purchased. The prospect of another iterative festival of content won't amuse F2P detractors – the presence of two different ▶



The B-movie machismo of the original *Gears Of War* cast is a distant memory, although *Fortnite*'s line-up of smirking hipsters can be just as abrasive





Epic has compared *Fortnite*'s wave-defence mechanics to *Left 4 Dead*, but there isn't remotely the same level of desperation or uncertainty

kinds of XP for playable and non-playable characters is particularly obnoxious, and there's the obvious suspicion the game's love of loot is just a pretext for microtransactions – but more importantly, the mundanity of it all is a betrayal of the premise. *Fortnite*'s throwback universe may cast players as kids running wild in the woods, but it seems more interested in doling out shiny commodities and waylaying you with career objectives than catering to that idyllic daydream.

Once you've pierced its thick crust of customisation screens and pop-up menus, *Fortnite* handles elegantly enough, marrying *Gears*-style thirdperson-shooter controls to a streamlined realtime editor, with constructable objects floating before you as wireframe holograms. Speed is the key: given a little practice, the editor allows you to paint in walls, floors, ceilings and ramps in the middle of a battle, working to herd tougher foes into killzones or patch up gaps in the perimeter. Mechanisms such as traps and health pads, however, must be prepared in a separate

That fixation with levelling and loot aside, the mix of gunplay and crafting has promise

building menu, using rarer crafting materials that are often hidden inside buildings or underground. The four upgradeable character classes (which span a much larger number of characters) gently nudge players towards certain roles – Ninjas are for cutting ghouls to ribbons, while Constructors can deploy a machine that slowly repairs nearby structures – but each class has access to the full range of weapons and item recipes. In any case, you can pick a different class each time you play. *Fortnite* once had a completely open character-creation system, but Epic found that players were more able to coordinate when they could assess each other's preferred style at a glance.

The item recipes themselves aren't mind-blowing – they extend from wall and ceiling zap traps, through jump pads that fling you upwards or sideways, to spiked, chest-high barricades – but do give rise to entertaining combinations, with more options to be added in the months to come. Some players of *Fortnite*'s extended closed alpha have fashioned gigantic skulls, firing down into the horde from their eye sockets; others have chained jump pads to allow defenders to fly around sprawling structures in a heartbeat, *Quake*-style. "Right now we have a railtrack system, where you can place a cart and it'll ride around the base and you're bringing ammo from point A to point B," Sugg says, when asked what's possible when you've unlocked most of the tools. "But our longterm ideas there are, well, 'What if you could put a trap on top of that? Or what happens if the damage dealt by a falling boulder is commensurate with the height from which it's dropped?'"

If experimenting with such possibilities is diverting, the overall impression is nonetheless of a game that isn't quite sure what it wants to be. Judged as a shooter, *Fortnite* isn't a patch on Epic's back catalogue – its guns varied but heftless, its monsters expiring in a lacklustre, PG-13 puff of damage numerals. The building editor, meanwhile, is slick but seems limited by the simpler thrills expected of a thirdperson shooter. Sugg argues that the game's colourful tutorials will help bridge the divide between approaches and audiences. "There's a generation, maybe 35 years plus, that hasn't played *Minecraft* at all, and they're like, 'OK, how do I shoot stuff in this world?' So we spend a bunch of time teaching them about the speed of building, and how easy it is in most instances."

The focus on defending your structures may also win over players who lack the patience for undirected experimentation, Suggs adds. "It allows them to say, 'I wasn't into atomic units, blocks, but I do understand throwing down barricades in front of people.'" Sugg is less convincing when it comes to how *Fortnite* will captivate younger souls who've grown up in an industry saturated with realtime construction toolsets. He argues that, "Sub-16-year-olds are ready-made to play this kind of game because they've been playing *Minecraft* for the last four years." Most, you'd think, would just keep playing *Minecraft*.

There is much to like here, moment to moment. The art direction is charming, once you forgive the hackneyed invocation of the hallowed '80s, and that fixation with levelling and loot aside, the mix of gunplay and crafting has promise. But the blueprint is lacking something – some secret ingredient to lift the game above its mingled inspirations. If *Fortnite* does indeed hold up a mirror to Epic's evolution, the image it reveals is indistinct. ■





Epic wins

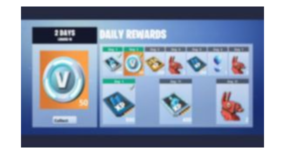
Fortnite and the recently launched *Paragon* aside, Epic has three games in development at the time of writing. The most intriguing is *Spyjinx*, a collaboration with JJ Abrams that caters to the director's skill for vivid characterisations. *Battle Breakers*, meanwhile, is a turn-based mobile RPG with a collection mechanic, modelled on Japanese anime, that sees you tapping the screen to free heroes from crystals in a weird echo of Peter Molyneux's *Curiosity*. There's also a small team working on a reimagining of *Unreal Tournament*, Epic's reputation-making arena shooter. The studio recently completed a well-received VR showcase, *Robo Recall*, and remains enthusiastic about the sector's future. Worldwide creative director Donald Mustard suggests that current VR headsets are equivalent to MP3 players before the advent of iPod.











TOP **To expand your home base, you'll need to trigger and survive an undead onslaught. It's worth stocking up on craftable resources in missions first – they're often scarce near outposts.**
RIGHT **The building editor is designed for speed and efficiency – to create a door, you remove a two-square slot from a wall rather than building it separately**

TOP **Each hero has a couple of recharging special abilities, such as a dash attack, a charging shield bash or a deployable robot guardian.**
ABOVE ***Fortnite*'s frontend is a morass of upgrade screens and reward notifications, blunting the appeal of the warm cartoon aesthetic.**
MAIN **Fixing a structure costs less than building one, so it's wise to have at least one player on repair duty during tougher firefights while others snipe or run down ranged attackers**



H Y P E

ARKTIKA 1

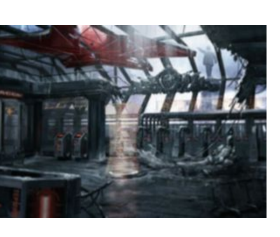
4A Games steps out of the Metro system and into VR

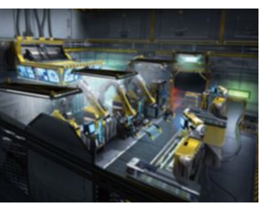
Developer	4A Games Malta
Publisher	Oculus Studios
Format	Rift
Origin	Malta
Release	2017

Your base serves as a hub from which you'll set out on sorties. It has several floors, one of which sports an armoury and shooting range, as well as an operations room for choosing missions and where you'll go









Arktika 1's spaces are complex and grand, with plenty of opportunities to seek cover. Even though you must warp between predefined points, moving about is key to flanking and disorienting enemies

We've only caught a few words of the presumably important briefing that our commander is dishing out as she drives us to the outpost we'll be working from. Some of the details have stuck: we've been hired by Citadel Security to protect one of the last surviving colonies in the post-apocalyptic wastelands of Russia. Violent raiders and mutated creatures threaten the peace, while the temperatures brought about by a second ice age make even stepping outside perilous. But we're more focused on all the buttons in this heavily armoured, and recently cosy, vehicle: we've lowered the electric windows and let the howling, frosty winds in; we've turned on the radio and are enjoying some jazz; and we've hurled a number of coffee cups and tablets out into the snow. As we pass a plane graveyard and pull up to the base entrance, an armed guard asks for ID. We hand him the photo card from the glovebox – time to be professional.

Despite being set nearly a century from now, *Arktika 1*'s setting will feel familiar to anyone who's played any of the *Metro* games. But while there are plenty of thematic similarities, the parallels end there. "Story-wise there's no link between the world of *Arktika* and the world of *Metro* – they're two completely separate IPs," executive producer **Jon Bloch** tells us. "But we definitely wanted to have the same kind of feel in this game that our fans are used to. We rooted it in what everyone expects from us, and what we love and know and do so well, and then steered that in a new direction, so we can start to experiment with things we've never done."

Arktika 1 may set a new high-water mark for visual and mechanical fidelity in VR

The most prominent aspect in that regard is the shift to VR. 4A Games Malta has built the game around Oculus's Rift and Touch controllers, and the results are startling. There's more familiarity here in aspects such as the decision to use warping between set points to navigate the world, but the studio may just set a new high-water mark for both visual and mechanical fidelity in VR. The world-building is as detailed and atmospheric as any of the studio's previous games, and the team has eagerly taken advantage of the possibilities unlocked by motion-controlled VR – handing that ID card over, for example, or the way guns are reloaded by flicking them sideways or down to your hips depending on the barrel type.

"A lot of the way the studio works is very iterative, especially from a design standpoint," Bloch says. "That goes on throughout the entire development process – which, for me as a producer, can sometimes be a bit of headache! But VR development works really well with how we do things, and now there are so many more areas that we never would have thought of making a mechanic for before."

4A Games has already built a reputation for doing things differently, of course. Take those cobbled-together weapons from the *Metro* series that fling ball-bearings and must be manually pumped to maintain enough pressure. *Arktika 1*'s futuristic setting called for more reliable kit, however. As such, the game features an armoury of powerful laser and projectile weapons that won't conk out on you in the middle of a firefight. "When we started we had all these different-looking guns, but they all kind of worked the same," says Bloch. "So initially it was about trying to find interesting ways to make them different – we didn't want a bunch of laser guns."

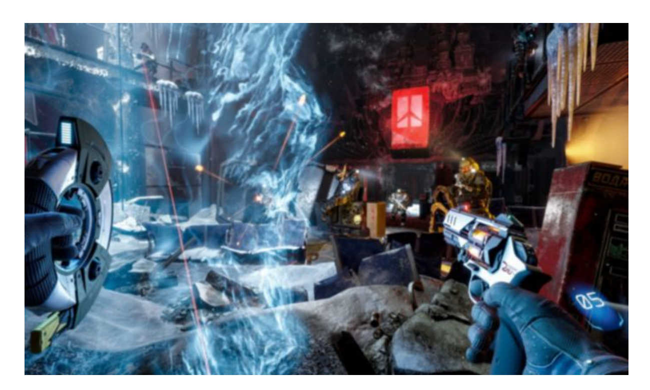
The result is a comparatively exotic array of tools. One gun curves bullets around corners (a feature that can be augmented by an IR scope attachment or handheld camera, both of which allow you to spot enemies while crouching behind cover. If you don't want to move around too much, or are playing while seated, a hand-held energy shield provides a little more safety. Another gun apes *Halo*'s Needler and riddles enemies with shards of plasma. And you can even build custom weapons from component parts (see Plug and slay).

While you're limited to specific spots when moving about each space, the aggressive nature of the game's enemies encourages you to switch between positions, making proceedings feel less like a VR *Time Crisis* than it otherwise might. There are safe and risky cover spots, too – denoted by blue or yellow outlines, respectively – and you're sometimes able to open crates or raise forklift beds to create or change lines of sight. Together, these mechanics ensure combat feels deeper and more dynamic than you might initially expect, even after the novelty of doing it all in VR has worn off. ■



Plug and slay

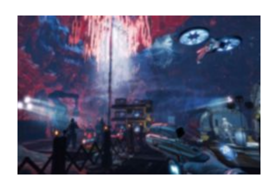
Most weapons accept torch and scope attachments, but you're also able to build your own tools from scratch. Custom weapons are constructed from three main parts: the main module determines the ammo type, (laser, plasma, etc); the barrel modifies damage, accuracy and projectile speed; while the rear module holds the magazine, cylinder or battery you need to hold ammo. In play, ammo is unlimited, and you reload by dropping your hands to your waist, flicking the barrel out sideways, or throwing the barrel forward and back in the case of, say, a shotgun. All weapons are single-handed because larger weapons with a pair of independent controllers didn't feel as convincing.



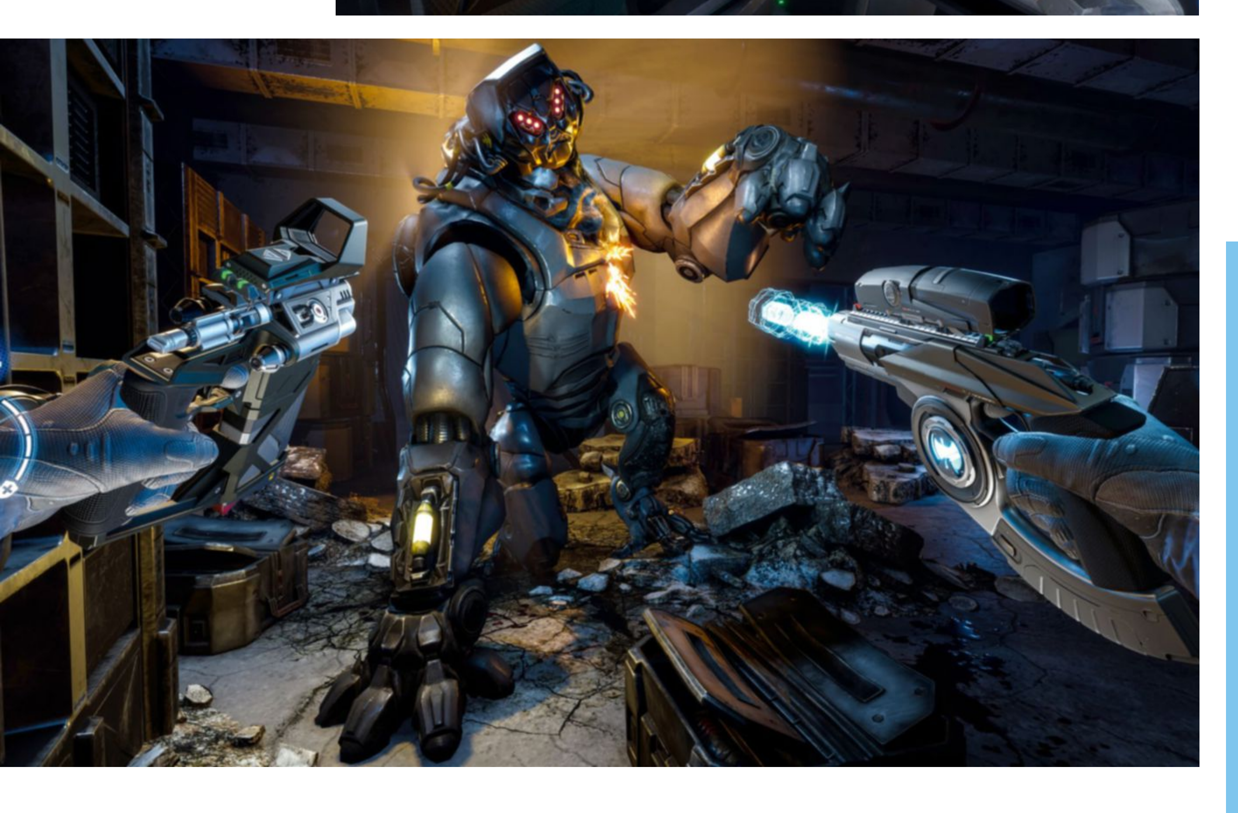


TOP **Taking the handheld shield means that you'll only be able to wield one gun, but ammo is unlimited.**
RIGHT **The game begins with you being driven to your new workplace. There's plenty to mess about with in the vehicle en route.**
BELOW **These robots are meant to be allies, but this one has gone rogue. In this particular boss encounter, you must warp between the corners in the room and shoot out the machine's legs before removing its batteries**





TOP **These deformed creatures have a habit of disrespecting your inability to run away, and charge at you rather than seek cover.**
ABOVE **This drone is one of your available tools. In one level we played, we had to defend it while it hacked a computer terminal in a dark, two-storey server room**







Developer Monolith Productions
Publisher Warner Bros
Format PC, PS4, Xbox One
Origin US
Release October 10





Each Orc lieutenant can field a bespoke selection of troops. Caragors can scale walls to shut down siege weapons, while shield-wielding Defenders are for advancing at street level through projectile fire

MIDDLE-EARTH: SHADOW OF WAR

There's more to Talion's return than playing capture the castle

Monolith's latest assault on the Tolkien universe sees each Orc leader's traits and foibles writ large in the fortresses that loom over every region of the world. Assign a member of the Feral tribe to run a captured keep, for example, and he might decorate the walls with butchered firedrakes, attracting beasts to the vicinity – a peculiarity you, as immortal ranger and latter-day general Talion, might exploit to acquire a new mount. To date, press for the game has focused on the act of conquering (and defending) these structures, whereby you'll pick your lieutenants, choose between such troop types as troll demolishers, venomous spiders and agile Caragor cavalry, then drive your foes back from control points to the innermost sanctum and a clash with the overlord. *Shadow Of War*'s evolution of its predecessor's famous procedural Nemesis system isn't, however, just a question of taking territory from realtime strategy. It bleeds down to every facet of the game, including the expanded loot mechanics.

"It's not just, 'Here's some classic RPG gear that changes your look and playstyle,'" design director **Bob Roberts** explains. "It's actually an extension of those Nemesis systems, the relationships and interactions. So, the properties that are going to drop on a gear piece aren't totally random – if the guy's afraid of Caragors and you summon a Caragor to chew him up, there's a much higher chance that what he'll drop will strengthen your beast skills or damage." The tale doesn't end there. "You'll have to complete a challenge to upgrade it, another quest that continues that character's story even though he's dead. The system remembers who you've got it from, and once you've fully upgraded and perfected that item, it'll have a little quote from him, a recollection of where this came from." If the original *Shadow Of Mordor*'s procedural elements helped make up for its reliance on repetitive open-world structures, furnishing you with a lively antagonist wherever you turned your head, this sounds like a terrific antidote to the monotony of the gear grind.

In the hands, *Shadow Of Mordor* is immediately familiar – an ornate hybrid of *Assassin's Creed*'s agility and the *Arkham* games' open-ended brawling, though spoiled a

Swapping out world elements based on the Nemesis system is *Shadow Of War*'s major technical challenge, but Monolith has also made upgrades in every department, including an overhauled lighting pipeline









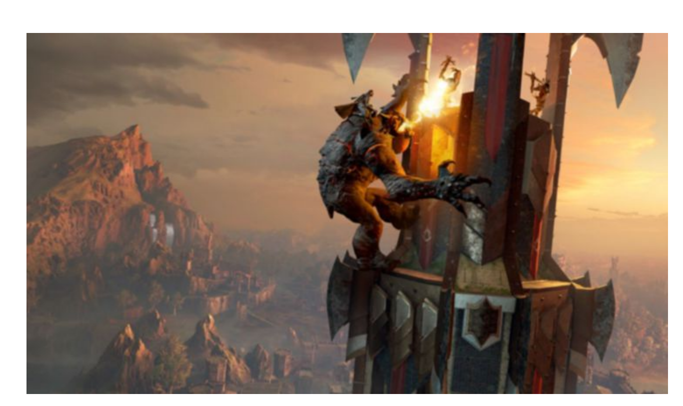




The megafauna of Middle-earth are yours to ride, once you break them in. Graug are excellent against fortifications but may do as much damage to your troops as the enemy

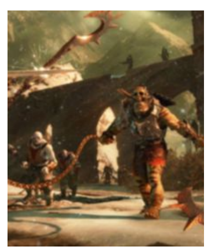
bit at this point by some wooden animations. Talion remains a master of parkour, equipped with a new aerial dash and the ability to slow time in mid-air; you can also use opponents to cover space quickly by teleporting straight into an execution, care of your mystic bow. Brawls are built around simple combos and finishers, a delightfully over-powered counter, stunning blows and crowd-control spells such as Elven Wrath, which spawns a group of wraiths to aid you. As before, the battles are most fun when a ranking Orc appears, jeering at you about past encounters in a manner more befitting of soap opera than epic.

Individual Orcs thrown up by the Nemesis system will, we're told, be more consistent in *Shadow Of War*. "We have a lot of randomness going on, obviously, but we align certain ideas," Roberts says. "Like, if a character rolled with a certain look or title, we make certain traits more likely to happen because they join up nicely." The Orcs are wilier, too: underlings can now betray you, stabbing you in the back as you lead the charge, though its likelihood can be reduced by reviving downed lieutenants to increase their loyalty. You can also shame enemy overlords rather than killing them to reduce their rank and leave them open to hypnotic possession, or break their sanity to unlock some particularly volatile behaviours.



> ***"It's not just, 'Here's some classic RPG gear that changes your look and playstyle'"***

Mordor itself is a more visually arresting environment this time, though there's obviously a limit to how eye-catching it can be. "That's a hard challenge, to make something bright and colourful and still authentic to Mordor!" Roberts says. "So we did push down to the coastal areas in the first game, into Núrn. We're still down in Núrn in *Shadow Of War* but we're pushing the ecology and vegetation a bit farther. We also go up into the snowy mountaintops at the borders, and we've got the human city of Minas Ithil that's just outside Mordor's boundaries, a big Gondorian city." We're keen to discover what the developer has made of Middle-earth beyond Sauron's realm, but between the chaos of siege battles and the quieter brutality of grooming Orcs to supply choice weapons, we suspect that you'll be perfectly happy on this side of the border. ■

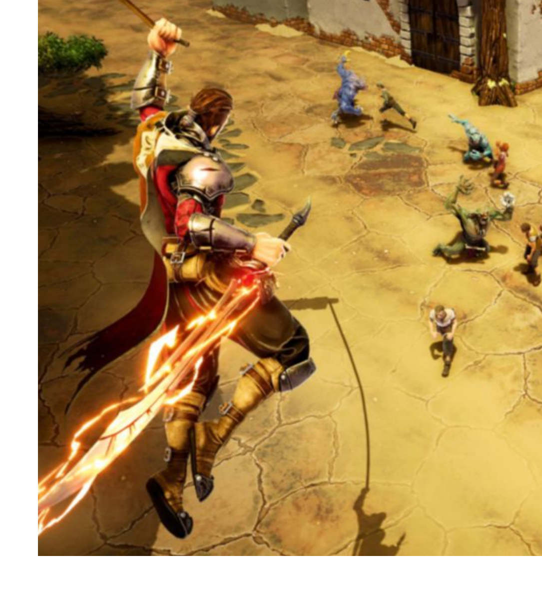


Shared systems

Monolith's procedural enemy-generation system remains one of the stronger answers to the question of how you tell a story through unpredictable variables. Does it have a future outside Middle-earth? "I think it's a set of philosophies that conceptually could map onto a lot of different licences," says design director Bob Roberts. It's easy to imagine an *Arkham* game with Monolith's procedurally generated goons, but comic-book adaptations might not be the best fit, since they revolve around long-established characters. "That's why we have a mixture of story characters that are scripted, but have so much of the game interacting with the Orcs: we can let them adapt and react without anybody worrying that a character isn't how they're meant to be."

Developer Iron Galaxy
Publisher Maximum Games
Format PC, PS4, Xbox One
Origin US
Release TBA







EXTINCTION

Iron Galaxy's fighting experts are hunting bigger game

We spend a while wrestling with the idea of Iron Galaxy's latest project. It sounds like the studio itself has, too. Some things are easily grasped: it's definitely a thirdperson action-adventure game. It's also a monster-battler influenced by the likes of Team Ico's *Shadow Of The Colossus* and popular anime series Attack On Titan. Beyond that, things get more complicated. "I've worked on a bunch of games," game director **Kraig Kujawa** tells us, "and this has been one of the most ambitious things that I have worked on."

That's quite the statement from a man with credits on series such as *Killer Instinct*, *Dead Rising* and *Resident Evil*, yet *Extinction* contains more moving parts than its simple, painterly art style suggests. Combat is writ large and fantastical: you play a Sentinel named Avil who must resist humanity's aggressors, an ogre-race called Ravenii.

Each of the three types of ogre will attack in different ways. Some might favour sweeping arm attacks, for example – you can strategically nullify those by chopping off limbs

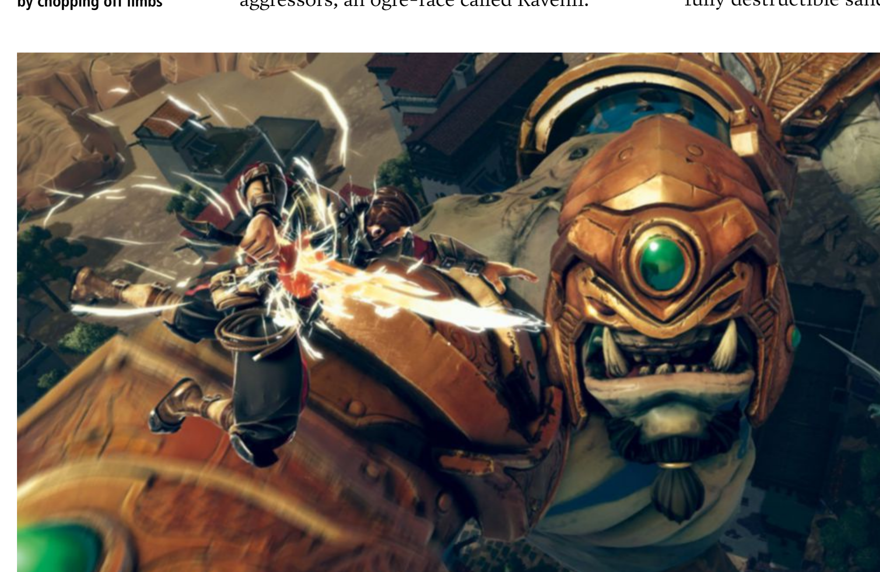
"We've been balancing combat with all sorts of crazy characters on *Killer Instinct*," Kujawa says (Iron Galaxy is now lead developer on the formerly Rare-made fighting game). "So when it came to, 'How do you make a 'David versus Goliath' fight work?' that was a challenge we wanted to take on." But the desire for fresh blood pushed the team further. "Then Derek [Neal, executive producer at publisher Maximum Games] said, 'OK, why don't we do some procedural worlds too?' and we're like, 'Uh, OK, sure, we can do that,' Kujawa says. "'Oh, and just to make it a little bit harder, make the ogres random every single time.'"

It's certainly a lot of different elements – the question is how well they all fit together. "It's almost like a combat puzzle-box, in a way," Kujawa says. The saturated sprawl of urban and forest locales is not strictly an open world: it's a series of procedurally generated, fully destructible sandbox mission areas, in

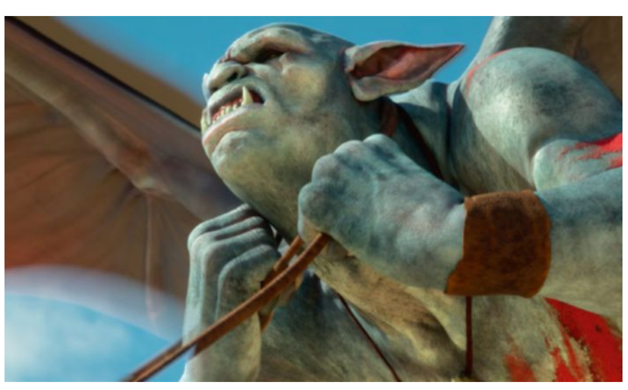




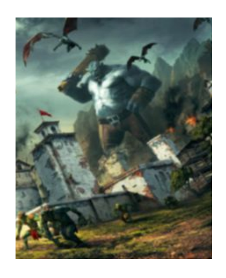
Game director Kraig Kujawa (top) and Maximum Games executive producer Derek Neal

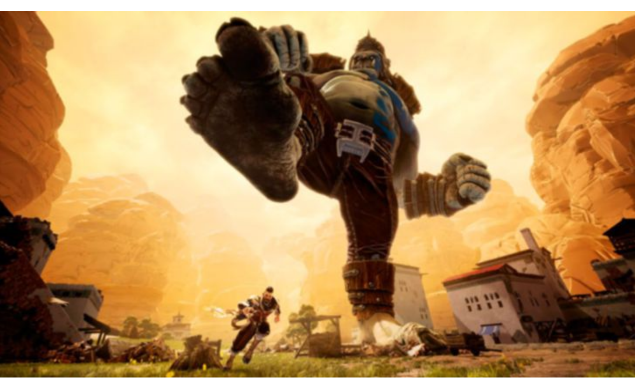






LEFT **Comboing the Ravenii's smaller fry is a means for Avil to get to higher ground when nearby buildings are scarce; flying minions can be grappled onto by using the whip**





TOP LEFT **Art director Chad Newhouse tells us the team designed the world to look "timeless", though there's a clear medieval feel to the town and Avil's plate armour.** ABOVE **Dodge rolls won't save you. If you're in the way of a direct hit, you're done. It's about realistic-feeling fights, we're told, though there's clear artistic licence in the time-slowing abilities**

an effort to keep the action more focused. "I think of the map like a 3D Carcassonne," Kujawa says. "Every tile gets procedurally slotted in before you play it. You take the Carcassonne tiles out, you spill them out, and you arrange them. And we have rulesets under the hood to make sure that the tiles fit together logically." Once the map clicks into place, other elements – enemy AI, lighting, NPCs and items – are layered on, with tempting power-ups or endangered citizens influencing which route you're likely to take.

The next part of *Extinction*'s puzzle box is its protagonist: Avil is gymnastic enough to give Ezio Auditore a complex at 20 paces, capable of horizontal and vertical wall-running on – we're promised in breathy tones – "literally anything"; is proficient in air-dashes and whip-enabled grappling; and can also slow down time during combat. The idea is that the combination of Avil's generous skillset and the game's carefully coded environments will balance your fight against the enemy: huge, procedurally generated ogres that'll kill you in one hit. It's less of a DNA lucky dip than 'procedurally generated' suggests, however. There are really only three types of Ravenii (muscular but slow; slender and agile; your common-or-garden man-eating humanoid). Instead, Iron Galaxy is seeking to introduce tactical variety through the different kinds of armour ogres wear.

Gear pieces are made of wood, iron, bone, gold or have spikes, dictating how you approach fights. Only some can be destroyed. Others can be knocked off, but may have clasps that need loosening first. Gold features grapple points, so you can clamber upwards towards an ogre's head, a decapitation and victory. If the code throws up trickier armour sets – "You might have an ogre that has two gold pieces on his arms but iron on his legs," Kujawa says – you'll scale tall cliffs or multi-storey buildings to spring onto shoulders. Provided your platform doesn't get punched to smithereens in the process, anyway.

Protagonist Avil is gymnastic enough to give Ezio Auditore a complex at 20 paces

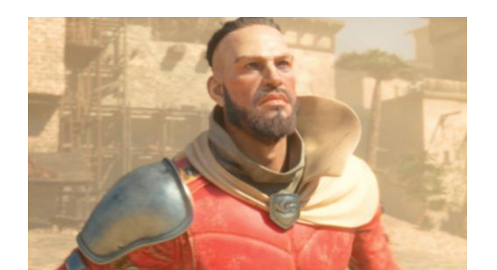
The armour system helps set *Extinction* apart from the usual hit-the-weak-point boss battle, intended to prompt more improvisational and tactical assassinations. If the world really is full and reactive enough, it could make for truly creative clashes – although from what we've seen, Iron Galaxy's brave new world is looking a little bare. Why risk tackling a much broader game like this? "We know combat," Kujawa says. "How can you possibly make that more challenging for the team? As it turns out, the answer is, 'Apply it to a 3,000-foot ogre.'"

"This is a beast that hasn't been done before," he continues, unconsciously setting up that 'David versus Goliath' dynamic once again – only this time, in the context of the game's development. "We're really excited about taking a swing at it." ■

Deadly alliance

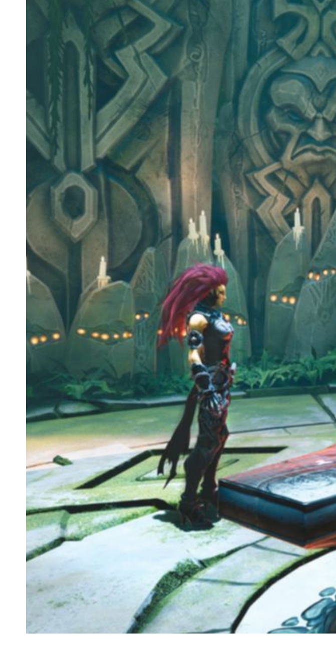
How has the team implemented its fighting-game expertise in *Extinction*? Executive producer **Derek Neal** practically lights up in response. "Internally, the explanation that we used to try to tell people what we've got in the game is a cross between *Shadow Of The Colossus* and *Mortal Kombat*." Plenty of *Extinction*'s dev team once made *Mortal Kombat* games at Midway; others have worked on titles like *Divekick*, *Darkstalkers* and *Marvel Vs Capcom: Origins*. Game director Kraig Kujawa adds: "At Iron Galaxy, our whole thing is moment-to-moment combat. All of our guys speak the same language when it comes to frame-by-frame look and feel."

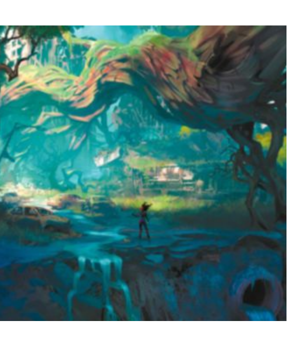
Protagonist super-soldier Avil is the last of the Sentinels, a group of legendary fighters that fought the Ravenii hordes long ago, and humanity's final hope. No pressure, then





Developer Gunfire Games
Publisher THQ Nordic
Format PC, PS4, Xbox One
Origin US
Release 2018





DARKSIDERS III

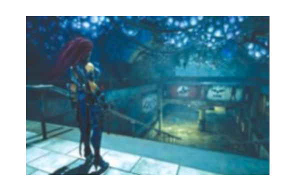
There's no truce with this Fury

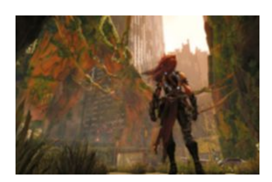
Well, it's been a while. Not, admittedly, as long as the century that War's soul has spent screaming in the abyss: the punishment handed down to *Darksiders'* original protagonist for – as you do – prematurely starting the Apocalypse. But five years is a long time for a series to be similarly stuck in limbo. *Darksiders* was one of the many victims of the fall of THQ, but the brand's acquisition by Nordic Games (since renamed THQ Nordic) raised hopes of a revival. No one quite knew what to make of a hastily assembled remaster of the second game two years ago: was this a final death rattle, or a prelude to a proper follow-up? While we sense the announcement of a third game came a little sooner than developer Gunfire Games might have preferred, a warm reception bore out the publisher's decision to announce it early.

As one of the founders of original developer Vigil Games, Gunfire president **David Adams** has been with the series from the very beginning. Even he was surprised by the magnitude of the response. "It's really cool to see that we made a franchise that apparently a lot of people like and were excited to see come back," he says. Design director **John Pearl** adds: "I remember when we released *Darksiders* that people who played it liked it, but it didn't really get that groundswell of support right away. It got pretty good reviews and sold pretty well, but we didn't really hear it – I guess social media wasn't as prevalent. However, to see that people have such reverence for [both games] is inspiring."

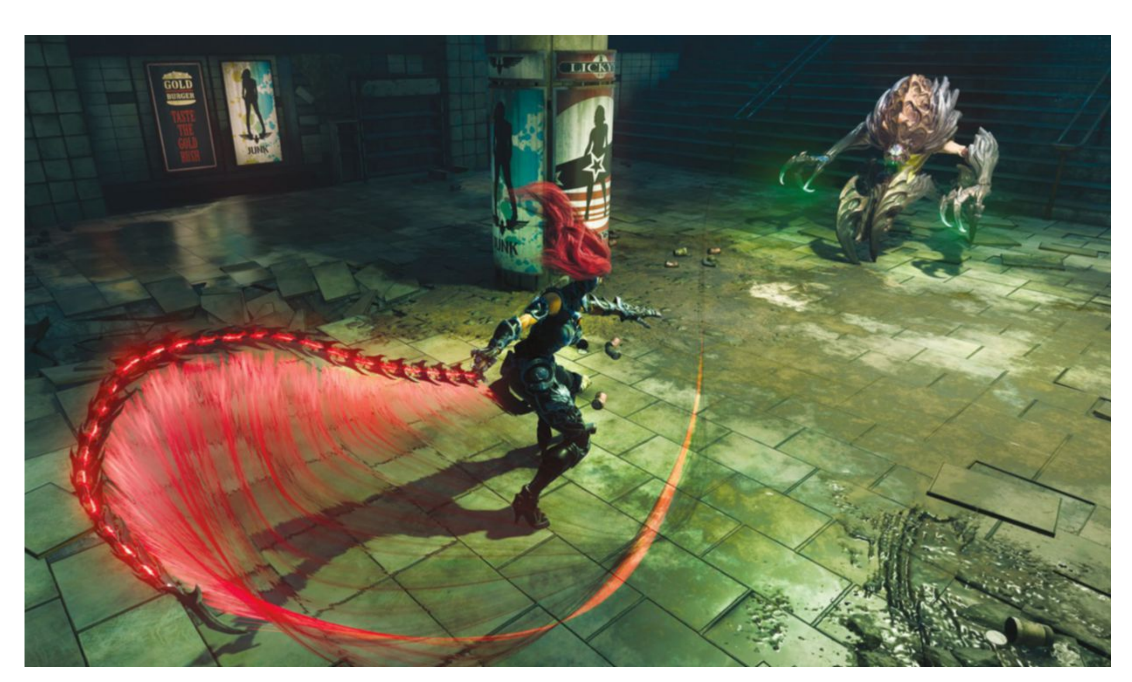
Darksiders III takes place at roughly the same time as its immediate predecessor, during War's incarceration. Where Death was

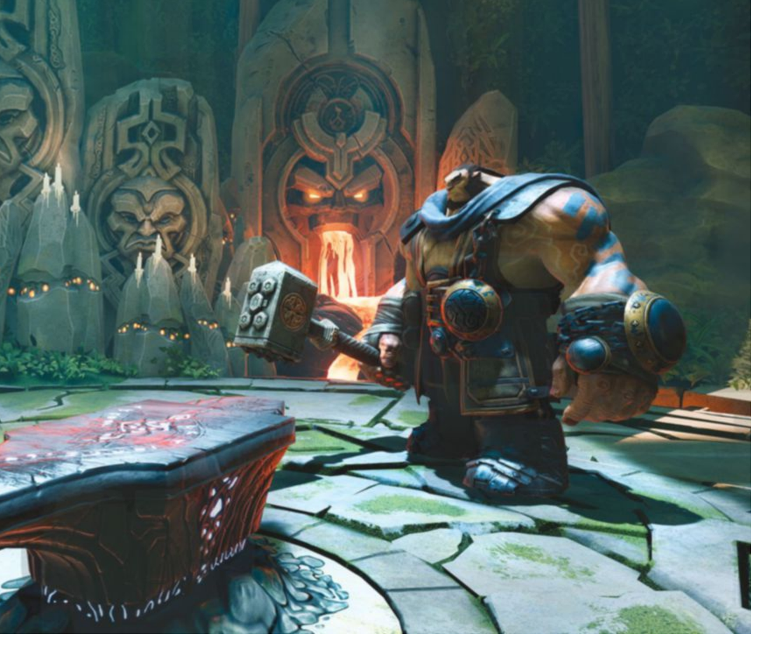
Pearl says fans shouldn't be concerned if combat with Fury's whip appears simplistic: "War started with a sword and then he got a scythe, and then his Chaos form and all that. Fury has her own gear and upgrades that make her more mage-like, we just haven't shown them off yet"



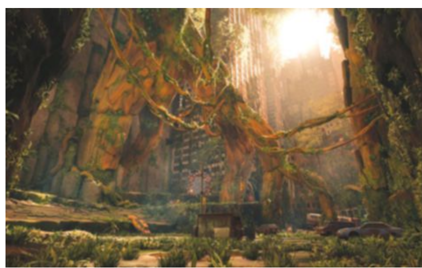


ABOVE **The world design is much more elaborate than even the second game, Adams says. "You're looking straight up or down and seeing multiple layers of the level above you or beneath you, or off in the horizon. For a guy like me [who] enjoys exploration, I love that stuff. Starting to make the connections about how the world fits together and figuring out how to get to different places is an appealing part of the gameplay, and now we can enhance that experience"**





LEFT **There will, says Adams, be nods to the two previous games, but *Darksiders III* will open with a 2D storybook sequence that will fill in the background for newcomers.**
BELOW **Adams says Gunfire's biggest challenge is being good at every discipline: "No one's going to give you a pass just because you're doing all of them"**





keen to prove the innocence of his fellow Horseman, Fury is more concerned with doing her job – namely defeating the physical manifestations of the Seven Deadly Sins, which made their escape during the Apocalypse. "She's like the good cop, basically," Adams explains. "She wants to be perceived as the best and most loyal Horseman around." It might have taken all four to retrieve the Sins last time, but Fury believes she's more than capable of handling the task alone. "She's like, 'Yeah, I got this,'" Adams continues. "And that's an illustration of her personality."

As a whip-wielding mage, the nimble Fury will handle rather differently from Death and War. And while her game offers a similar blend of environmental puzzles, combat and exploration to its predecessors, the structure of the world has changed significantly – particularly from the hub-and-spoke design of the first game. "The world's a lot more interconnected," Pearl says. "It's almost like a big dungeon. In previous games, you'd go through a dungeon, get an item or an ability and that would open up new paths. This time, we're treating the whole world [like that]. It's a lot more vertical this time. You might come into an area and then wind your way around and find yourself back in that same area but from a different vantage point, and with some new options open to you."

If that sounds like Gunfire has been taking a few tips from Hidetaka Miyazaki, it's a comparison the studio is happy to acknowledge. "I would say it's definitely like *Dark Souls* in [that regard]," Adams says. "*Dark Souls* was how I would imagine a 3D *Metroidvania* – without the gear items and the puzzle-solving, but with [a similar] interconnectedness. So, yeah, all those kind of games have been an inspiration on the layout and the world design." Gunfire is also aiming to ground its puzzles more believably within the game's fiction. Gone, too, are combat areas

> ***"The world's a lot more interconnected. It's almost like a big dungeon"***

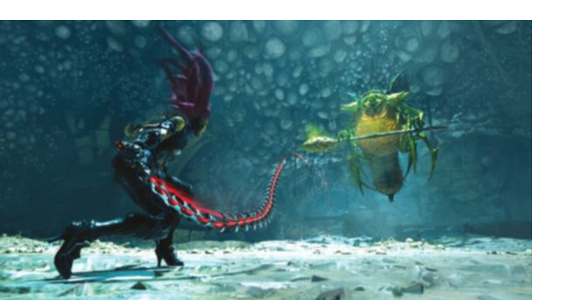
where locked doors bar your escape until you've defeated a given number of enemies: "A *Darksiders* reality doesn't have to be down-to-earth or mundane, but we're always looking to find a reason for these things to exist, to make them feel like they fit in the world."

Pearl and Adams are keen to stress there's much more to come from Fury, with a pre-alpha build barely scratching the surface of *Darksiders III*'s combat mechanics. Early feedback has, Adams says, suggested that the studio's plans are falling neatly in line with fans' wishes, with any causes for concern merely a side-effect of showing the game off at this nascent stage of development. "It's funny when you release this stuff, especially pretty early on, you tend to get a reflection of what you're thinking yourself," he says. "Like when someone says, 'I wish she had more weapons' – of course she's going to have more weapons, of course she'll have more magical abilities. We hear a lot of confirmation of stuff, and we're like, 'Cool, we were planning to do that anyway." ■

Wild style

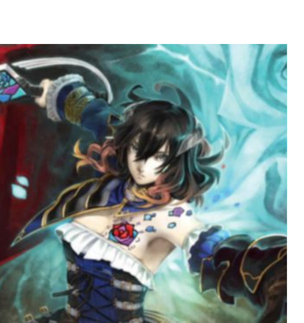
As one of the few action-adventure series to feature more involving puzzle elements, *Darksiders* prompted several critics to liken it to an M-rated *Zelda*. So with *Breath Of The Wild* taking Nintendo's series in a very different direction, does this leave a gap for Gunfire to fill? "Yeah, I think it does a bit," Adams says. "I mean, we diverted from the *Zelda* format also, but in a different way. It was actually a bit of a relief to see that *Breath Of The Wild* went the direction it did, because the last thing we want is to have everybody say, 'Oh look, they're copying [Nintendo].' But I think you're right – for people that miss that formula of gameplay, I think *Darksiders III* will provide it, but in a new way."

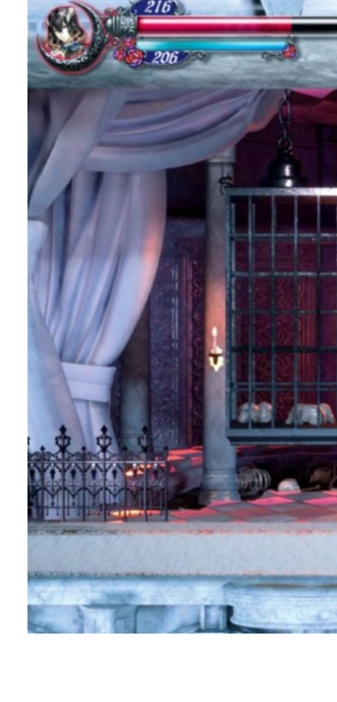
Sloth is the game's second boss: a bloated, lazy bug carried on the backs of his insectoid minions. Destroying them makes him more vulnerable





Developer Inti Creates
Publisher 505 Games
Format PC, PS4, Switch, Vita, Xbox One
Origin Japan
Release 2018





BLOODSTAINED: RITUAL OF THE NIGHT

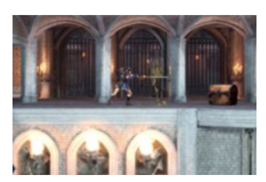
Castlevania's guiding light kickstarts a new age of darkness

Set for release a full decade after the last true 2D *Castlevania* – series fans understandably discount loot-obsessed co-op adventure *Harmony Of Despair* and *Lords Of Shadow* spin-off *Mirror Of Fate* – producer Koji Igarashi's spiritual successor to his lauded platformer-adventure series represents a somewhat more delayed resurrection than his traditional vampiric villain is used to. Not that Dracula himself is the undead inconvenience this time out. Writing a brand new scenario in order to step comfortably away from Konami's currently mothballed official series, *Bloodstained* transposes the action from Transylvania to merry old 18th century England, and forges a new fanged threat with not a Belmont in sight. There is, of course, a whip.

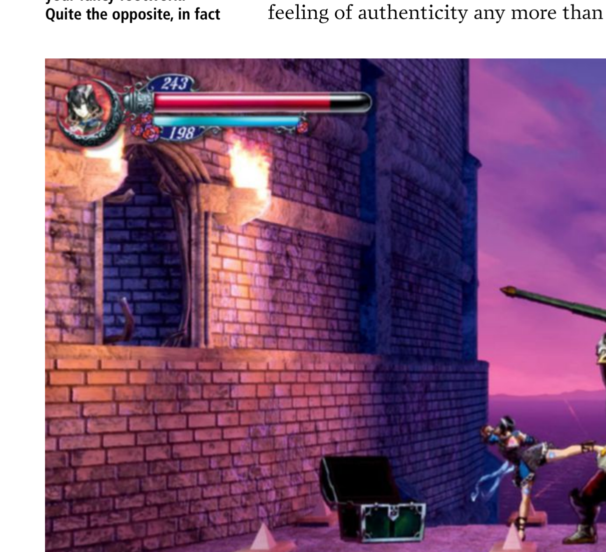
Not that the change harms the game's feeling of authenticity any more than proxy Counts and interchangable, befrilled villagers trouble the loosely adapted Hammer horror films that so clearly inspire both *Castlevania* and *Bloodstained*. There's still a magically conjured castle; there's still a plucky, multi-skilled hero; and there's still a family-focused narrative. And this being a game in the item-collecting, ability-earning, Metroidvania style, there's a great deal of back-tracking exploration, too.

If the full extent of that isn't entirely comprehensible in *Bloodstained*'s E3 demo – clearly a truncated, condensed slice of the bloody action designed to relate an impression of the game's slow-burn, ability-gated progress system at show-floor-friendly turbo speed – then there is a tantalising glimpse of it in what *isn't* present. Crumbled passageways, locked gates, and seemingly impossible-to-reach platforms appear in





TOP **Aerial combat can be dicey without a blade separating Miriam from her target. It is, however, stylish enough to warrant the risk.** ABOVE **Another *Castlevania* holdover. In this grandiose, regal stronghold, most of the cash is found hidden inside smashed light fittings**



Don't be fooled. This chap isn't cheering on your fancy footwork. Quite the opposite, in fact



Swirling gallons of blood aside, this boss might not appear too monstrous. Her attack patterns, however, are positively demonic

belligerent, teasing abundance, their impassibility gleefully betrayed by unexplored gaps and unravelling, unfinished corridors on the auto-updating minimap. Without a lengthy chunk of the final game at hand, few of these puzzles can be fully solved, but their promise alone has the correct, attention-snagging effect, demanding gratifying further investigation at a later date.

Partially less absent, and entirely more tangible, is a view of how protagonist Miriam's more personal journey will play out by way of her continual growth throughout the game. Not content to simply upgrade weapons and stockpile exploration equipment, Miriam has not just one sizeable, ready-to-fill RPG inventory for gear, weaponry and accessories, but rather eight of them. Taking in the likes of multiple armour pieces with passive defence and stat buffs, as well as equippable special powers – for exploration, combat, and combinations of the two – and many sharp things for stabbing monsters, her character-customisation screen holds the scope for eight simultaneous loadouts, switchable on the fly. She might look an unassuming sort, but her long-term tactical intent feels as deep as its scope is wide.

Indeed, a satisfying amount of nuance can already be felt in the demo's small but eclectic weapon set. A direct, upward katana swipe, for instance, will neatly snick those smug, flying enemies out of the air. But when it comes to pure crowd control and blunt-force damage output, there's nothing to match the slow, carefully timed heft of an overhead broadsword swing, the weapon's weight as clear in *Bloodstained*'s nimble but expressive animation as in its punishing, omnidirectional effect. But why carry a weapon at all, when Miriam has feet of stone? If you're willing to risk getting closer to the enemy, kung-fu shoes will pack a meaty hit, leading into a satisfying footsie game when combined with an always-available backstep. It's not exactly *Street Fighter*-level zoning, but when it all comes together, it feels very good indeed.

And while the creatures of the night we see in our demo consist mainly of the aforementioned fearful flappers and some twitching, *Silent Hill*-style flesh dummies, there are already signs of cleverly economical combat demands. A large, armoured knight might be little threat when encountered in a cavernous tower, but run into the same roadblock in a narrow, low corridor, and things play out very differently. Some advice, if we may: commit his animation timings to memory, equip a long spear, and settle in.

The climactic boss fight against a grotesque female demon is where things get truly exciting

If such quiet evolutions are promising, then the demo's climactic boss fight against a grotesque female demon is where things get truly exciting. Draped in a dress of morphing blood, like Bayonetta with haemoglobin instead of hair, she attacks with similar speed and versatility, all rapid, screen-length dashes and swift, sudden-but-fair mid-range attacks. *Bloodstained*'s painterly yet clean-lined art really comes into its own here, facilitating a fight that's spectacular, yet readable. It never becomes easy, but learning to navigate the battle is as enticing a challenge as traversing the castle itself. Maybe those eight loadouts really are necessary, after all. ■



The out-of-the-way treasure chest. If you find what looks like an unnecessarily awkward route going nowhere, you can bet it's heading to one of these



Crystal chronicles

Found several times during the demo, in out-of-the-way chests and occasionally dropped by some of the more imposing monsters, the equippable crystal powers appear key to a great deal of *Bloodstained*'s strategy. Heralding their own arrival by way of a screen-shattering stained glass effect and the rude impact of a huge, glimmering shard ploughing through Miriam's chest, these more powerful abilities can be equipped two at a time. Some are passive, like the aforementioned double jump, while others are not, such as when she's launching phantom dragons from sword swipes, or pouring directable 180-degree flame jets from her palms.



LOST SPHEAR

Developer Tokyo RPG Factory **Publisher** Square Enix **Format** PC, PS4, Switch **Origin** Japan **Release** Early 2018



All is forgiven, *Bravely Default* – at least that was correctly spelt. A more accurate title might have been *I Am Setsuna, Too*, since Tokyo RPG Factory's follow-up to its wintry JRPG throwback is clearly from the same production line. The art style and top-down perspective are identical, while the ATB-style battle system is similarly familiar, albeit tweaked to accommodate an additional party member and allow freer movement than *Setsuna* managed. This new world isn't blanketed in snow, which should mean the journey is less visually samey, though its premise is similarly gloomy: protagonist Kanata must find out why the inhabitants of his hometown have vanished. If one of said denizens is called Sphear, we suppose all must be forgiven.

GOLF STORY

Developer/publisher Sidebar Games **Format** Switch **Origin** Australia **Release** Summer



Looking like the fusion of Camelot's handheld *Mario Golf* RPGs and *Stardew Valley* we never knew we needed, this Switch debut from newcomer Sidebar Games has the makings of an off-kilter treat. A mixture of traditional stroke-making and odd asides (mowing lawns, flying drones), it's the kind of golf game that lets you take a shot from a swan boat or blaze a trail by pitching through a campfire. Oh, and alligators can catch your ball mid-flight.

RED DEAD REDEMPTION 2

Developer/publisher Rockstar Games
Format PS4, Xbox One **Origin** US **Release** Spring 2018



The rest of the publishing industry breathed a sigh of relief after Take Two announced a delay for Rockstar's sprawling western from this winter to next spring. The development team wants extra time to take full advantage of PS4 Pro and Scorpio, which is probably fair enough. After all, in the Wild West, you needed all the horsepower you could get.

FINAL FANTASY VII REMAKE

Developer/publisher Square Enix
Format PS4, Xbox One **Origin** Japan **Release** TBA



It's been two years since that dramatic reveal at Sony's E3 2015 conference, and it sounds like we could be waiting a good deal longer yet. *Asura's Wrath* creator CyberConnect2 has been taken off the project, with the publisher's Naoki Hamaguchi adding that development has been moved in-house "with production and quality in mind". Ouch.

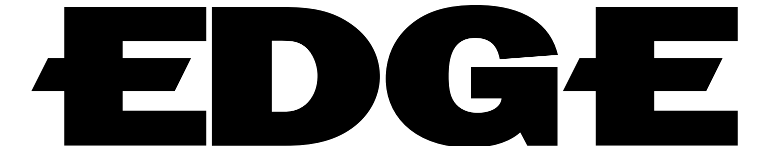
TINY TRAX

Developer/publisher Futurlab
Format PSVR **Origin** UK **Release** TBA



Secret Sorcery's unsung god game *Tethered* demonstrated how VR can benefit thirdperson games, and Brighton-based *Velocity* developer Futurlab's latest might be an even better example. It's a departure for the studio: a chunky, colourful slot-car racer, which winds elaborate tracks around the player as you switch lanes and drift-boost to beat AI opponents, or race up to four other players online.

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VIDEOGAME CULTURE, DEVELOPMENT, PEOPLE AND TECHNOLOGY




T H E
R E L I



Ubisoft Montreal throws away the Far Cry template in order to create a cult classic

By Ben Maxwell

Game *Far Cry 5*
Developer/publisher Ubisoft (Montreal)
Format PC, PS4, Xbox One
Release February 27, 2018

The message on the sandwich board was plain enough: "The end is near." Normally, *Far Cry 5* creative director and executive producer **Dan Hay** wouldn't have paid much attention to such a hyperbolic warning. But on that day, two-and-a-half years ago in the centre of Toronto, something hit home unexpectedly. "I had two thoughts that day," he tells us. "The first was: 'Oh, maybe he knows something that we don't?' The second was, 'That's the first time I've looked at somebody like that and not thought they were crazy.'"

For Hay, the encounter was yet another contributor to a growing sense of malaise – a lingering feeling that something in the world had shifted around the time he joined the *Far Cry 5* project as creative director. Ultimately, that discomfort would help to shape the game. As a kid growing up in the '80s, Hay was acutely aware of the threat posed by the Cold War tussle between the US and Soviet Union. Films such as Terminator and WarGames, and all manner of similarly themed TV shows, exacerbated in him the feeling that "this umbrella above us would break and doom would just drop on top of us". It was a daunting time, especially for a child. But when the Berlin Wall fell there was a palpable sense of relief across the globe as the prospect of nuclear obliteration faded.

But as an adult, that feeling of impending doom began to creep back into Hay's life again. "I really felt it with some of the things that were happening in the US, like with the sub-prime-mortgage collapse," he tells us. "And also some of the things that were going on across the world. You started to hear the language of separation; of people wanting to separate from what was supposed to be a global village. Even Brexit gave me this feeling in the pit of my stomach like, 'Wow, that is a big change for the world.'"

With all of this percolating in the background, seeing the man with the sandwich board triggered a thought in Hay: why not make *Far Cry 5*'s antagonist like that preacher from Toronto? That idea, in turn, raised the prospect of setting that game in the US for the first time. "We actually had the concept of going to America as far back as when we finished *Far Cry 3*," Hay says. "At the time it was just this idea that was out in the ether; we weren't specifically talking about the ▶

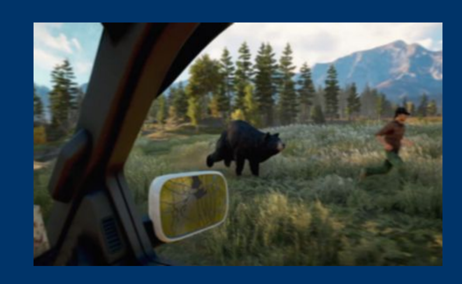


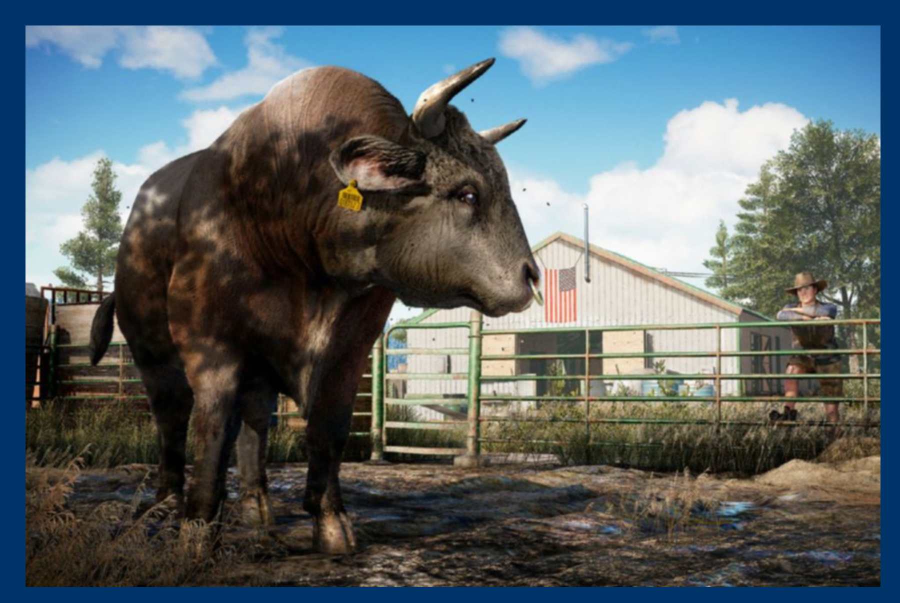
"EVEN BREXIT GAVE ME THIS FEELING IN THE PIT OF MY STOMACH LIKE, 'WOW, THAT IS A BIG CHANGE FOR THE WORLD'"



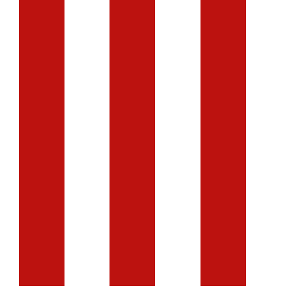
Hay is keen to stress that players who prefer to go it alone will still be able to do so, but you can also enlist locals into your ragtag resistance, and up to three skilled guns for hire at any one time

"WHAT IF WE MADE A CHARACTER WHO KNEW, OR AT LEAST BELIEVED FERVENTLY, THAT WE'RE HEADED FOR A COLLAPSE?"





TOP **While the move to Montana makes for less exotic wildlife, it doesn't mean the countryside is any less dangerous.** RIGHT ***Far Cry 5* looks great from what we've seen, though we're pretty sure that this is a bull shot.** BELOW ***Far Cry 5*'s list of vehicles includes chunky pickup trucks, muscle cars, big rigs, ATVs and tractors. You'll be able to hop in a plane this time, too**



location beyond it being in America, and we weren't specifically talking about the creative direction – we were just kicking around the idea of going to the States.

"But we weren't completely content with some of the ideas we had – they just didn't feel relevant. So that concept ended up getting pushed to the side, and we focused on something that was perhaps a little bit more classic *Far Cry*. We shipped *Far Cry 4*, and we were very happy with that, and then we did *Primal*, and that was super cool. And then at the end of *Far Cry 4*, the team that was working on it resurrected the idea of going to the States.

"What dawned on me was: what if we made a character who knew, or at least *believed* very fervently, that we are all on the edge and we're headed for a collapse? What if we took that person and we gave them the power to be in charge of a cult that's basically trying to protect humanity from this coming collapse – at least, that's their belief? And what would it mean if we put them in the United States?"

Joseph Seed is the result of that thinking. More subdued, less volatile, and less flamboyant than Vaas Montenegro or Pagan Min, Seed – also known as The Father – is the founder of a fanatical doomsday cult named The Project At Eden's Gate. A self-styled prophet, Seed leads the cult alongside his devoted siblings. But despite some arguably old-fashioned methodologies and beliefs, Seed is very much a product of our times.

"We felt really good about what we did with Vaas and Pagan Min, but we also wanted to make sure that when we created The Father that he was born of *now*," Hay says. "That the things that he believed, and the things that he espoused, were really relevant and made sense today. That way everybody could relate to him and ask the question, 'Is he crazy?'"

Ubisoft Montreal had to find a location that would suit the siblings' need to operate off the radar. Montana, with its historically isolationist populace and expansive landscape, was a perfect fit. The team set about creating Hope County – a wide-open, agricultural area in which Seed and his family have set up shop and begun to infiltrate locals' lives.

"We started to think about where specifically would be a frontier in the States, where would match the spirit of being a little bit off-kilter, and strange, and wonderful, and wild," explains Hay. "Somewhere we could have almost a Twilight-Zone-type experience, which is how I feel about *Far Cry* in general. We flew to Montana because we'd been hearing that it has a history of self-reliance, and was a place where people went to be left alone, away from the prying eyes of the government. We spent two weeks there, and the stories that we heard and the people that we met completely validated the possibility of Joseph Seed going to Montana and believing that the end of the world is coming, and then beginning to make plans to protect himself and his followers from it."

The move to Montana represents a profound change for the series, which has always favoured exotic locations and sprawling, unbroken wilderness. But it's not just the local flora and fauna that will feel different: Hay and his team have had to rethink what constitutes a *Far Cry* game in this new context.

"Taking it to America is a big move for *Far Cry*, and taking the game into an environment that's semi-urban, or at least feels like civilisation is around every corner – that is absolutely a big shift," Hay says. "So that affects the language of *Far Cry*, and the moment-to-moment experience that you have. What's really interesting is to watch people play the game in an arena that they kind of already know, with rules they know."

This time around, for example, rather than hurling a military 4x4 down rough-hewn tracks that cut through dense foliage, you might instead find yourself in a decidedly more domestic vehicle on a tarmac road and feel the urge to pay attention to stop signs. Fences in Hope County tend to pen in cattle – smashing through them will set the animals loose, potentially causing havoc (or at least a distraction). And while hired allies make a return, *Far Cry 5* also introduces a 'fangs-for-hire' system that means you can have a loyal pet dog alongside you.

Hay won't be drawn on the mutt's name yet, but it sounds like a useful blighter. Send it into a group of enemies, and it'll tag their positions for you. Keep it by your side, and it'll offer short shrift to anyone who tries to attack you, charging them in return and even stripping them of their weapon before returning it to you like a tossed stick. ▶

ALT RIGHT CLICK

The similarities between the events in *Far Cry 5* and the real world are certainly unsettling (indeed, some have taken issue with what they perceive to be a jab in their direction), but Hay remains adamant that the game doesn't proffer a political statement. "I don't think that recent events have guided it," he says. "We came up with the idea for this game two-and-a-half, almost three years ago, and it's been in the oven baking since then. Is all the stuff that we were inundated with three years ago the thing that's worked its way into our collective psyche and then spawned this idea? Or did we just get… not lucky, but is the alignment something else? So the way I would answer that question is that of course you can't help hear what's in the news and see what's on TV, and get a sense of what's happening, and *not* have it influence you to a degree."



***Far Cry 5* creative director and executive producer Dan Hay**

"ALTHOUGH WE HAD GYROCOPTERS IN THE PAST, YOU COULDN'T DOGFIGHT, YOU COULDN'T CALL IN BOMBING RUNS"



While we've previously taken to the air with *Far Cry 3*'s wingsuit and the gyrocopter in *4*, this will be the first time the series has featured dogfighting and bombing runs



"We were really trying to understand how we were going to use animals, and leverage the things we'd been doing in *Primal*, and *Far Cry* 3 and *4*," Hay says. "As part of that, we spent a day with a hunter while we were in Montana. It was towards the end of the day, and we were pretty tired, then all of sudden he just said, 'Freeze; don't move.' We sat there for what felt like an eternity watching his dog, who was in this prone position looking at a bush. About 12 minutes passed and then the dog just barked, and this grouse took off. The guy just turned to us and said, 'Always trust your dog.' At that moment we knew we needed to have a dog in the game, and to make sure that it was something that you could trust. You have to be able to have a relationship with it, it has to have meaning, and it has to have gameplay value. Because that's a tool that people here would employ, we did too."

The trip also inspired the team to take advantage of the more densely populated nature of Montana compared to, say, a tropical island or Central African republic. "We want to put you in a world inhabited by real people," Hay says. "When we were in Montana, we met real, interesting characters. They were honest, they were forthright, they were stoic – they had a really good bullshit detector. I really didn't get the sense that I could lie to these folks. So in this new instalment of *Far Cry*, for the first time you're able to go out and meet people and enlist them into your resistance against the cult."

As you move about the county, then, you'll encounter characters who are in a spot of bother. Help them, and they'll join your cause, providing assistance in a number of ways. While most are just regular Joes with no particular skills, you'll also encounter hero characters who, once enlisted, provide access to unique assets and toys that can support your efforts. These hero characters also gain experience alongside you, becoming more proficient and learning new skills as they go. Take Grace Armstrong, for example, a proficient sniper who can provide covering fire from a distance. Or Nick Rye, a ballsy pilot who can be called in to do bombing runs and who generously offers to share his plane.

"We really wanted players to be able to take to the skies, and although we had gyrocopters in the past, you couldn't dogfight, you couldn't call somebody in to do bombing ▶

BAR CRY

Hay worked as producer or executive producer on *Far Cry 3* and *4*, *Blood Dragon* and *Primal*, so he has plenty of experience with the series. He also has a very specific idea of the sort of story a *Far Cry* game should tell. "When a *Far Cry* story feels right to me, I imagine myself sitting in a bar having a scotch while a stranger sitting next to me tells their friend a story that feels real, but also like an urban legend. If it's a story of survival, and it takes place in a frontier, it's perfect for *Far Cry*."

WILD LANDS

In a series that is usually heavily authored, has switching to a fully open-world design caused any problems? "Fuck yes – it's difficult!" Hay tells us. "It's one thing to write something on paper, and another thing to deliver it. But I think what's cool about what we're building is that we are starting to see it happen. We have these real-feeling people telling stories about the lore and the cult, and hinting that you might want to go to different locations in the world. It's very much about breadcrumbing, but it's different for us – we want to make sure that we still provide players with the ability to snack on stories, and step into action bubbles, but that they're relevant and that it still feels like the meta is something that you can follow and is relatively easy to understand."

runs and you really didn't feel like you had a person who was your partner in crime," Hay says. "Nick was very much born from some of the people that we met in Montana, and when you meet him he's going to be in some very specific trouble. If you can help him, and enlist him, he's really useful.

"Just imagine: you're looking down on Hope County [from a high vantage point] and the cult has now taken it over and civilians are being taken. You're like, 'How the hell am I going to manage this?' Then you see this convoy of trucks driving through the space, and you go, 'Wait a minute, I've got Nick in my back pocket.' You call over the radio, you point at the convoy and he goes, 'Yeah, I'm on it.' He flies over the top and just decimates it with a bomb from above. Or, you could just go and get into the plane yourself and do a strafing run, or dogfight with the cult when they send their own planes out after you."

Hope County might be populated with charismatic folk, but the studio is moving in the opposite direction when it comes to the game's protagonist. A local junior deputy, who accidentally triggers a cult takeover of the area after an encounter with Seed, our hero is a little green but knows how to use a gun – a deliberate effort to avoid the usual trajectory of playable characters.

"I hate it when you play a game and you go from zero to hero in ten seconds, and there's no conceivable reality about it," Hay says. "By giving you a job that allows you to have a gun and a modicum of training, it makes sense that you'd at least know how to use a revolver. But typically in *Far Cry*, what we've done is build this very thin hero, and we've made the voice of the protagonist the voice of the player. This time we want you to be able to just be you. We want you to be able to customise yourself to look like you if you want. You have this shell of the deputy around you, but the person who's got that job and who has that responsibility is *you*, if that's who you really want to play as."

This renewed commitment to player choice extends to your path through the game, too. Rather than follow a tightly authored story in which everyone traces more or less the same line through an open environment, this time you're free to head in any direction you like from the outset, and meet characters in any order along the way.

"The game pays attention to what you do and responds to it," Hay explains. "Depending on where you are in the game, it throws forth micro-stories and action bubbles that are relevant to the space that you're in. I don't want to give too much away, but let's say that one player heads north, and another heads south – both would have a completely different experience, with different people, and there would be different stories there. If you played for ten hours, and then we were at work the next day chatting about it at the water cooler, you'd tell me what *Far Cry 5* was about and I'd be like, 'I played a completely different game and I have no clue what characters you're talking about!'"

That's all very well, but while the studio's dedication to adding new mechanics and greater freedom is commendable, if the game still hits all of the usual *Far Cry* beats – irrespective of whether it does so in a different rhythm – it could quickly lose momentum. Indeed, one criticism levelled at the otherwise excellent *Far Cry 4* was that it perhaps felt a little too similar to its predecessor. Hay is aware of those criticisms, and the potential pitfalls that they represent.

"We're devs, yes, but we also play a ton of games, so we're aware of that," he says. "I think the very first discussion we had about where we're going to go shows you where our head is at: I remember we kicked around some ideas and then we were like, 'You know what? If we do that people are going to be like, 'Of course, it's a *Far Cry* game and that's part of the template.' Right from the very beginning we decided that if something feels familiar, or if it feels like anybody could see something coming, we're doing it wrong. So when the idea first percolated about Montana, everyone was suddenly like, 'Wait a minute – nobody would expect that!' Think about what that means, think about this location and what it offers: this feeling of self-reliance and the people that we can put in it. It very quickly began to grow into something that is very powerful and different. If you track that reflex to do something different across the board, you can see the direction we went in."

So does that mean that players won't be clambering up towers to unlock portions of the map, then? "That's a fair question," Hay laughs. "How do I answer that...? We ▶

“THINK ABOUT THIS LOCATION AND WHAT IT OFFERS: THIS FEELING OF SELF-RELIANCE AND THE PEOPLE THAT WE CAN PUT IN IT”





TOP **Seed believes that his actions are for the good of humanity, making him perhaps more dangerous than even Vaas or Min.** LEFT **While the cult has taken over a vast tract of land, it operates from a fortified compound.** ABOVE **Nick Rye's sea plane provides a flexible way to hop around Hope County**

understand the nature of people asking a question about the formula of climbing towers and looking at the world and unlocking the map. We wanted to do something different this time, that's as much as I'll say. But there's tons more I want to tell you."

Hay is unguarded in his enthusiasm and passion for the series (this is the fifth *Far Cry* game that he's worked on, but only his first as creative director), and we emerge from our chat cautiously optimistic about *Far Cry 5*'s potential to subvert expectations to the same degree that *Far Cry 2* did with its jamming guns, malaria attacks and fire propagation. If the game lives up to the team's ambitions, it could also represent a much-needed shake-up of Ubisoft's open-world template. It's an opportunity Hay and his team certainly intend to seize.

"When you build games, there are always those heartbreaking moments where you have to leave features on the cutting-room floor because you have to ship," Hay says. "But this is a game where we want to test ourselves. This is a game where we want to try and move some things around and break some moulds. I think that games are really maturing to the point where you can tell great stories and, almost in the same vein as they do on television and in movies, put someone into an environment where you're challenging them and telling them something unique – you're giving them an experience that they can't get anywhere else.

"Typically, when you're making a game, you're earnestly working on it and you've got your nose to the grindstone. When you get up to take a smoke break, or go outside and take in some fresh air, you walk out into a world that's remarkably different to the game you're making. That's not necessarily the case on this game, and it's a very strange feeling to go outside and have people around you talking about things that *could* take place in your game. But putting the player against somebody who really does believe that they're doing right by humanity, at a moment in time where that seems to be a theme in the world… that just feels right." Just how much truth there is in the message on that sandwich board remains open for debate, but given everything that's happening in the world today, perhaps it really is time for us to consider the definition of insanity once again. ■



Hay and his team researched the way that real cults gain control of areas by buying up land and moving people in, then expanding as property prices fall

“THIS IS A GAME WHERE WE WANT TO TRY AND MOVE SOME THINGS AROUND AND BREAK SOME MOULDS”





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COLLECTED WORKS

FUMITO UEDA

D NO SHOKUTAKU: DIRECTOR'S CUT

Developer Warp **Publisher** Panasonic Acclaim **Format** 3DO **Release** 1995

ENEMY ZERO

Developer Warp **Publisher** Sega **Format** Sega Saturn **Release** 1995

ICO

Developer Team Ico **Publisher** SCE **Format** PSOne **Release** 2001

SHADOW OF THE COLOSSUS

Developer Team Ico **Publisher** SCE **Format** PS2 **Release** 2005

THE LAST GUARDIAN

Developer SIE Japan Studio **Publisher** SCI **Format** PS4 **Release** 2016

Japan's best loved and most mysterious director on a career spent carving his own path at his own pace

By Simon Parkin

Photography **Morten Skovgaard**



Back in 1994, Fumito Ueda had a fistfight on a Tokyo rooftop that left him unconscious and with neck pains that, even today, can be roused by a cold wind. A recent graduate from Osaka University of Arts, Ueda was a finalist in a Sony-sponsored competition to find a gifted young artist. Ueda used his winning allowance of $1,000 to build an installation in a vast shopping complex in Yokohama: a small cage filled with soil carefully churned into mounds, as if by a questing mole. Whenever a passer-by approached the cage, Ueda, spying on the scene from a nearby hiding place, would press a button on his remote control and two hidden motors would kick dirt into the onlooker's face. He wanted to create something that would have more of a lasting impact than a painting. But, surprisingly, it wasn't this that led to those rooftop fisticuffs.

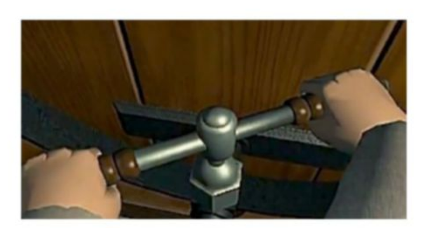
The scrap was, though, a result of this playfulness, which Ueda hoped to express in the final part of Sony's competition. The finalists were invited to the company's headquarters in Ginza, where each candidate had to perform for a panel of executives. Ueda and his partner decided to forego the questions and instead have a pretend street fight. They bought protective helmets and decorated them to look like wild animals. When their turn came, neither man held back. In the ensuing scuffle Ueda was knocked to the ground. He struck his head and passed out.

It is Ueda's commitment to this early performance, rather than its slapstick violence, that most accurately reveals his character: a willingness to see an idea through, no matter the cost. Ueda's three major games – *Ico*, *Shadow Of The Colossus* and *The Last Guardian* – have all made tremendous demands of him and his team. The lessons he has learned have been hard won, then, yet if his career since is any guide, they are all the more valuable for it.



"I'D SLEEP AT MY DESK EVERY NIGHT AND WOULDN'T GO HOME FOR DAYS ON END"





The musician and game designer Kenji Eno, under who Ueda worked at Warp, was also a somewhat maverick director who came from an art-school background

D NO SHOKUTAKU: DIRECTOR'S CUT

Developer Warp **Publisher** Panasonic Acclaim **Format** 3DO **Release** 1995

When I joined Warp, the original version of *D* had just come out. Due to an issue with manufacturing of the PlayStation version, the game's director, Kenji Eno, who sadly died in 2013, decided to put out a Director's Cut version of the game. Eno wanted this version to include an extensive number of cutscenes that weren't in the original version, and I was tasked with creating the footage. My bosses figured that this would be an appropriately sized project to start me on.

It was less than one month's work. In fact, I'm not even sure if my name made it into the game's credits. The game was made using Lightwave on the Amiga, a computer that I'd bought while I was at college, and had taught myself to use with an English language dictionary. As such I'd become something of an expert, although that wasn't necessarily why I was hired for the job. In fact, after this game the entire studio moved away from Lightwave to use Silicon Graphics instead. Rather, I think they had responded to the quality of the animation I had sent in when I applied for the job. If I remember rightly, I told them that if they liked what I'd submitted they were free to use it in one of their games. Anyway, it was such a short amount of time spent working on that game – just one cut and a brief sequence – that it's difficult to remember. I was new in the job and just got my head down.

ENEMY ZERO

Developer Warp **Publisher** Sega **Format** Sega Saturn **Release** 1995

As soon as my work on *D* was finished, I moved to Eno's next game, *Enemy Zero*. The work was gruelling. It's extremely blurry in my memory because of the long days. I'd sleep at my desk every night and wouldn't go home for days on end. I wasn't



involved in gameplay or the engine at that stage of my career, but in terms of the cutscene creation, I had to handle every aspect of the creative process.

To give an idea of what was involved, typically, these days people take several weeks just to make a single cutscene. On *Enemy Zero* I was making three cutscenes a day from scratch: everything from the animation to the lighting. The entirety of the cutscenes in that game stretched to about 90 minutes. There were just three animators on the team so I made a good third of them. I had so many tasks to complete every single day. I was young then – in my early 20s – which is the only reason I could handle it, I think. But I don't look back on that time negatively. When you work hard you grow muscles for working hard. It stood me in good stead for my later career, I think.







The interactive FMV sequences, pioneered in *D* and *Enemy Zero*, fell from fashion early into the Sega Saturn's life. But this mode of game design has enjoyed a revival in recent times

It certainly didn't put me off working in the game industry, but it did cause me to reflect on the differences between films and games. I was essentially making short films and, at some point in the process, I began to think about how the game would be better served if these scenes were more integrated with the gameplay, rather than standalone, non-interactive segments. It got me thinking about different ways there might be to tell stories in games, and from there I started to have my own ideas for more holistic game design."



Developer Team Ico **Publisher** SCE **Format** PSOne **Release** 2001

"After we completed our work on *Enemy Zero* – but before the game came out – I quit my job at Warp. My plan was to create something for myself, on my own. My boss tried to convince me to stay. But I didn't want to work with an organisation any more. I wanted to work on my own stuff, where I could set my own pace and work to my own vision. Now, if my plan had been to quit and join a rival studio they would have found a way to stop me. But because I just wanted to work for myself, the manager of the company gave me his blessing. They weren't completely happy, of course, but they understood why I was quitting, at least. I had some savings, so I bought another computer.

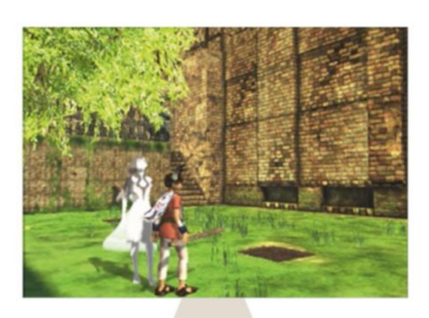
The project I started working on was what would later turn into *Ico*. It had a different name at the time – I can't recall what. It started with an image, which is how I like to work. The picture was of a tall girl with a little boy standing beside her. That was it. I didn't have any programming skills so my plan was to build a prototype in Lightwave. I was going to make short film sequences, much like I had with the two games at Warp. To be ▶

honest, at the time I started to work on the project I wasn't sure if it was going to become a movie or a videogame. It could have gone in either direction. The PlayStation and Sega Saturn had just come out. So the idea of making a game as just one person was unthinkable. We didn't have Unreal or Unity or anything that might allow someone to make a game by themselves. Still, I thought that if I could make my cutscenes well enough, just maybe I could convince someone to help me turn it into a game.

At that time I heard through someone I met online that Sony Computer Entertainment was looking for someone who had expertise in Lightwave. Nobody at Sony could use the software but I had learned it while at WARP. Through this person Sony invited me to work for them, but I refused, explaining I was taking time off to work on my own idea. I told them to check back in with me in about three months' time.

They asked me to come into the office anyway, to talk to them about what I was doing. So I took the work I'd done at WARP to show them, as well as my formative idea for *Ico*. Akira Sato, who is now vice chairman of Sony, offered me a computer and a desk at their HQ. They essentially gave me a three-month contract to create a trailer for the game – no strings attached. In this way I was able to present the idea with a trailer and, through that, give them a true vision of what the game could be.

What they really thought of what I produced I don't know. But I was told that I could continue working on it, so on some level it must have been well received. Now, Sony at that time had a dedicated CG team that was using silicon graphics machines, each of which cost several hundred thousand dollars. My hunch is that they looked at the trailer I'd produced on a PC, and the work that was being produced on the SG machines and they didn't perceive much difference in quality. So perhaps I was allowed to stay because of cost-cutting reasons.



Throughout *Ico*'s development Ueda and his team would produce short films, rather than interactive demos, to show off their progress to rival teams within Sony

"WE'D LOST ALL PERSPECTIVE AND WITH IT THE ABILITY TO JUDGE OUR OWN WORK"



Anyway, it was decided the project was going to be a game and, as a result, someone needed to take on the role of game designer. I said: 'I'll do it!' But even though I'd worked at a game company before, I didn't have any idea about how to design games. I had some concepts and knew what I wanted to do in the game, but I had no real sense of how to realise them. I lacked experience and knowledge, and I was worried that I couldn't compete against experienced creators. On the other hand, I had an art and design background. This was my advantage: I believed that I could make something quite different to the usual games of the time. Even at that stage I had a strong sense that I needed to be very individual in what I made, in fact.

Nevertheless, it took a long time. So the time came when it looked as though we might need to change the development platform from the PSOne to the PS2. The whole team was against changing the platform midway through development like this. None of us wanted *Ico* to be a PS2 launch title because we knew the game wouldn't use the capabilities of the new machine. It would be doomed to obscurity by those games that were designed specifically for the PlayStation 2. We protested but we were forced to make the change anyway. In the end, we weren't a launch game, which was a relief. So we were able to see what other developers were doing on the PlayStation 2, and learn from that.

The day of *Ico*'s release was surprisingly uneventful. There were no special celebrations. There wasn't an amazing feeling among the team. It wasn't like that at all. We'd lost all perspective and with it the ability to judge our own work. *Ico*'s development had taken so long that the team wasn't sure if it was going to be appealing to players. And within Sony at that time there were several other major titles coming out, and it felt like they were getting all of the attention. Nobody was cheering on our game. As a result we felt unworthy, unsure of whether what we'd made would be good

enough. Quietly I went out to a game shop, just to check for sure that our game was really there on the shelf.

Today I think people assume that *Ico* had very good reviews when it first came out, but this was not the case. *Ico* launched in December, and there were only 30,000 units produced – a tiny number. It was very quiet after the game's release. Then, the following year the game was nominated at DICE. That was the first time we heard a truly positive reaction.

SHADOW OF THE COLOSSUS

Developer Team Ico **Publisher** SCE **Format** PS2 **Release** 2005

Right after the completion of *Ico*, maybe even within a few weeks, I started work on *Shadow Of The Colossus*. The reason I know this is that I still have a sketch I made of a giant on which I wrote the date, which has the same exact day written on it that *Ico* came out in Japan. So I must have had the idea for the game even earlier. Like I said, I often like to start with a sketch.

Ico is a quiet game and everything happens in a relatively small, enclosed space. I read several reviews in the Japanese press that said, while the ambiance of *Ico* was effective, nothing much really happens. Some even said at the time that perhaps *Ico* couldn't really be called a game. So I wanted my next game to be more conventional, to avoid those criticisms. I thought: 'What is the most game-like characteristic? Fighting.' So I definitely wanted to have an emphasis on action.

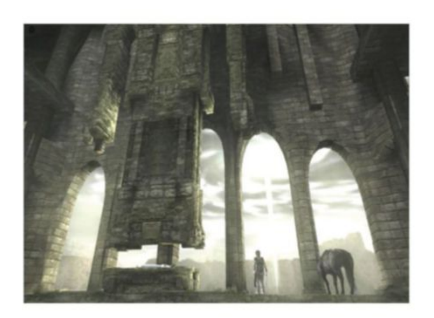
But I also wanted the kind of intimacy that you can see in *Ico* through the holding of hands between characters. Touch is important to me: a meeting point between two entities. I had to figure out what the meeting point in *Shadow Of The Colossus* would be. That's when I had the idea to make it a much larger surface. I thought: what if the touch point is not holding hands but hugging, or even hanging off one another. That's where the idea for *Nico*, as the game was called at the time, originated.

Making the game was a huge technical challenge. I was lucky: we had a programmer who loved this kind of major challenge. In no small part it's thanks to him that my grand idea didn't sink the project before it had even started.

It's worth also talking about the game's atmosphere, I think. *Ico* is, in some ways, a happy game. Things end in a pleasing way. It broadly has a happy resolution. *Shadow Of The Colossus* has a different arc. A lot of movies have happy endings. Very few games end in tragedy. So that offered a point of differentiation. I also wanted to make a game that lived on in people's minds for a long time. Sad experiences can often leave a strong impression. The same thing applies to movies and songs. Melancholy works are often more memorable and leave a longer lasting impression. ▶







Ueda shrugs off the suggestion he's a perfectionist. "All I strive for is to do what I think is right and to execute it in the manner that it should be presented," he says

THE LAST GUARDIAN

Developer SIE Japan Studio **Publisher** SCI **Format** PS4 **Release** 2016

We spent four years working on *Ico*, and three-and-a-half years working on *Shadow Of The Colossus*. Much of that time was spent trying to overcome the technological difficulties. For my next project I didn't want to spend nearly so much time on technical issues. Rather, I wanted to spend that time on game feeling, design, and the visualisation. Yes, I wanted to spend the time on fine-tuning and finesse. The same applies to the movie industry. In the early years, so much time was spent on technology. But after a certain point, technical accomplishments in film no longer draw the audience's attention. People naturally became more and more interested in characterisation, plot and story. It's sort of the same in games. I felt we had reached the point where the focus needed to shift. And I also wanted to make the game quite short, because I didn't want to spend a long time on development. Well. Obviously that didn't work out.

Despite my best intentions *The Last Guardian* had a very long development. Why? It just took so much time to create the game engine. It took so much time to tune it to a point that was satisfying. This held us up greatly because we couldn't progress to the next stage in the creative process till the engine could do everything we needed it to. The engine is the basis on which everything else in built, so it has to be right. Contrary to what you might expect, the time I felt most stressed during *The Last Guardian*'s development was at the beginning of the project, when we didn't know whether we could build an engine to support the vision. It took three years to get the engine to the point where we could progress to creative work.

The target I had with all three of my games was to attract people who do not usually play games. I wanted to appeal to a wide audience through universally accessible stories, foundational plots, almost. For example, *Ico* is a boy-meets-girl story, familiar to everyone. For *Shadow Of Colossus*, the story's theme centres on sacrificing yourself for a greater purpose. And in *The Last Guardian*, the core of the story idea revolves around the elemental fear of being taken from your bed by a mystical creature. Everybody has had that dream at some point in their life, I think. You see it echoed in all kinds of fiction, from Studio Ghibli's My Neighbour Totoro through to Spielberg's E.T.



"SOMETIMES YOU ARE FORCED INTO CREATIVE DECISIONS BECAUSE THERE IS NO OTHER WAY"





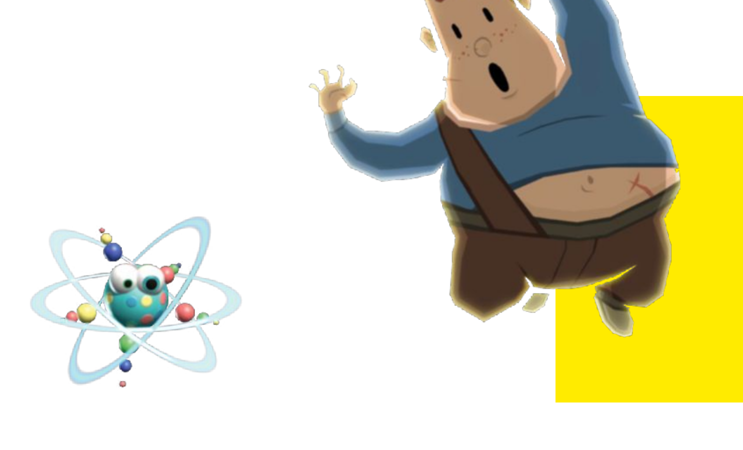


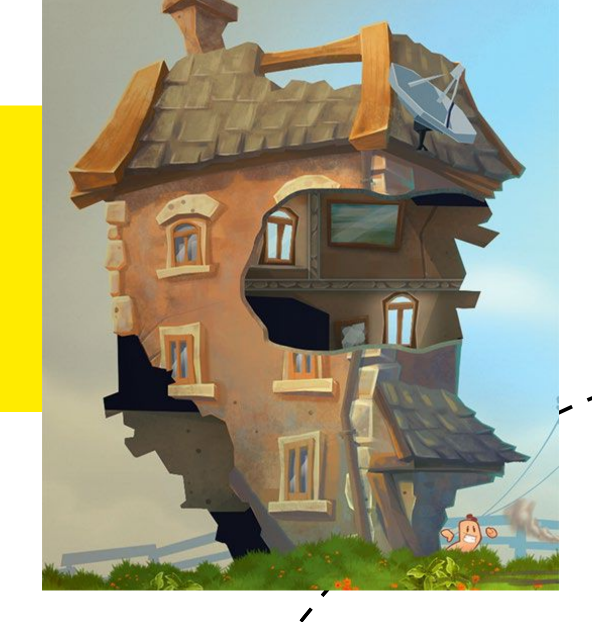
While studying at art college, Ueda says that his drawing style shifted from realism to modernism and abstraction. It's a change in direction that's somewhat evident in his more recent pieces of work

From my original plan to create a very short game, the story expanded into quite a traditional three-act structure. In that sense it's more complex than *Ico* and *Shadow Of The Colossus*, both of which have stories that occur in a single extended act. At the time of making those games I was not as famous as I am now, so I had to work within a more limited budget. But with the production of *The Last Guardian* I had reached a point in my career where I was given the scope to work on a broader canvas. I was able to do something more ambitious in terms of the plot development, creating much more of a journey in terms of the relationship between the two protagonists.

I don't think my fans will like to hear what I am about to say. Before I made games, when I'd play *Super Mario Bros.* or some other game, I'd imagine that the game represented the creator's true and final vision. I thought that they must have carefully considered every aspect of its creation, and the game represented the best version of their vision, where every decision was intentional. All these years later I realise that this is never the case. There is always compromise. There are always aspects to a game that are unintentional. You can't control everything. Sometimes you're forced into creative decisions because there's no other way to resolve an issue. That's true in my games, I'm afraid to say. Perhaps it's true of all creative endeavour: every work represents a compromise between a creator's vision, and the practicalities of the medium and process. I wish I'd understood that sooner. ■









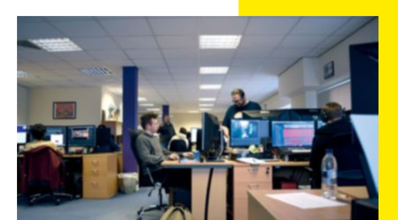
Go Te

How "the Worms guys" reinvented themselves as the UK's biggest privately owned publisher

By Chris Schilling








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A huge mural featuring a cast of characters taken from the studio's games stretches from the ground to the top floor

Everybody told **Debbie Bestwick** she was crazy. Team 17's CEO had just seen her company emerge from a two-year period of restructuring and refocusing following a management buyout in 2010. A yo-yo company for many years, it was now a sustainable business enjoying year-on-year growth. *Worms 3* was riding high in the paid-downloads chart on iOS, having reached number one around the world. The studio was in the healthiest, happiest position it had been in some time.

But Bestwick was getting itchy feet. She'd been fielding constant suggestions that Team 17 should release its most famous property as a free-to-play game. It was a perfectly logical next step from a business perspective – but it wasn't what she wanted to do. "We asked ourselves, 'Who are we?'" she recalls. "'Where do we want to be, and what do we enjoy doing? What do we love doing?' And it became very apparent that we probably weren't best to go into free-to-play making just *Worms*." She leans in, her voice dropping to a conspiratorial whisper. "That doesn't sound too interesting – nice as a part [of your business] maybe, but not, 'That's your future.'"

Instead, she had another plan: to transform Team 17 into an entirely new kind of videogame publisher. The response was predictable, Bestwick says. "'Why on Earth are you going to start doing that? Everybody's about to jump into mobile free-to-play, and instead you're about to take this business and go into a world that…' Well, let's be honest, the mid-tier publishers were all going bust at that time. I mean, we'd already lost THQ that year."

Still, the idea hadn't come out of nowhere. Bestwick already had strong relationships with Sony and Microsoft; she'd been fighting the corner for independent creators for some time, having struggled to find a publisher for *Worms*' first digital release and somewhat reluctantly signing with Microsoft for its Xbox Live Arcade debut in 2007. She had railed against the decision not to allow small studios to self-publish on the console download stores, and worked with platform holders to make them more approachable. "Sony were starting to build their plans for PS4; they listened, and we gave them some very good advice," she says. "With [Microsoft], we gave them equally good advice regarding ID@Xbox and helping them get that program together."

"And," she continues, "I was getting an urge to start hanging around with really cool indie developers again, [like] we did at the start of our career." But Bestwick recognised that Team 17 needed to do something bold to make its mark as a publisher, and avoid being seen as simply "the *Worms* guys". Every version of *Worms* was a million-seller, she was reminded. Anybody, people told her, could do that. "So how do you prove yourselves?" she asks, before breaking into a grin. "I decided to sign a couple of complete unknowns who'd never made games before."

In a sense, Team 17 had come full circle. When it was founded in 1990, it had no internal development team; instead, it worked with talent from across Europe, helping to bring their games to market. Top-down shooter *Alien Breed* was an early success, and over the next four years Team 17 published more than 20 games, with many topping the Commodore Amiga software charts. "We were very young, don't forget," Bestwick says. "Some of us were still teenagers while that was happening. We didn't go to any business schools – our university was the game industry. And it was a very young industry at that time as well, so we were learning on the job. We were a little bit like indie rock stars back then."

1995 was the year those starlets broke into the mainstream with their biggest hit to date. *Worms* was an instant and huge success; "Life changed overnight," Bestwick admits. Suddenly, external pressures began to influence the group's direction. Demands for a sequel came quickly, and while Team 17 continued to release other games, between 1997's *Worms 2* and the end of the century, the series accounted for fully half of its portfolio.





Creative director Kevin Carthew; Debbie Bestwick, CEO and now MBE, co-founded the company in 1990







For the next decade, until *Alien Breed* was resurrected in 2010, the number of non-*Worms* releases could be counted on the fingers of one hand.

That success was a double-edged sword. "It's not the most creative environment," Bestwick admits. "There's a lot of pressure in terms of [being] an independent business that has to be funded. Payroll has to be met month in, month out." But the decision to retain control of the *Worms* brand ultimately proved crucial to Team 17's survival. In December, it will celebrate its 27th anniversary, while the biggest industry names of the 1990s, including UK-owned giants like Ocean and US Gold, have long since closed down.

"We kept our IP partly because we were financially strong at the point that *Worms* launched," Bestwick says. "So when we cut our first-ever publishing deal – with Ocean, of all people – we were part-funding that game on certain platforms, so the IP wasn't up for grabs." Several other publishers have invested in *Worms* since; often, the question of selling out has been floated. Though financial difficulties almost saw the licence slip from the studio's grasp on two occasions, Team 17 has refused every offer. That explains why Bestwick is a strong advocate for developers keeping hold of their own intellectual property. "Content is king, whichever industry or business you're in," she says. "If you retain ownership of your works – you can look at film, you can look at books, at anything – markets change, and distribution platforms change, but there are ways to bring that product back to market."

Though *Worms* turned Team 17 into a one-game studio for a time, the core team was still passionate about the series, and its evergreen success helped establish a financial grounding that has latterly allowed its maker to diversify. And the series was quietly pioneering in its own way: Bestwick and company embraced digital distribution earlier than most, while in 2001 the first *Worms* mobile game became the first western game to top the software charts in South Korea. Then came the deal with Microsoft, with the XBLA version shifting more than 2 million units, before it moved to Steam and then PlayStation Network, finding an audience wherever it went. By the time Apple approached Team 17 in 2008, *Worms* had already reached 10 million downloads on Brew and Java devices. Its smartphone ▶

THE ESCAPISTS 2

Following a range of downloadable add-ons, and a successful spin-off themed around *The Walking Dead*, Mouldy Toof Studios' top-down prison-escape strategy is getting the sequel treatment. *The Escapists 2*'s biggest new feature is a drop-in, drop-out multiplayer mode, though the team has taken the time to address the most common complaints levelled at its predecessor. "One criticism of the original was that if your plans were scuppered, you were just told that you'd done something wrong and that was that," says designer Grant Towell. "So it was quite punishing and brutal. This time there are no insta-busts. We've come up with new solutions to get around that."

One of those solutions is a new star system for alerts, similar to *GTA*'s Wanted ratings. If a guard spots something amiss, they'll head to the security room to report it and the number of stars will increase, with security tightening accordingly: more patrols will be posted, and later you'll have guard dogs to worry about. Good behaviour will bring that down, but if you notice a guard about to report something, you can knock them out en route to the security room and they'll forget what they were doing. It won't be game over, even with a maximum star rating, though you'll face a challenge escaping when there's a full lockdown. "It allows you to regroup and fix the issues with your escape plans, rather than start again," Towell explains. "So it's more forgiving, but there's still that buzz of, 'I'm going to do it tonight.'"

Prisons will be bigger this time, spread across several floors. We're given a guided tour of Rattlesnake Springs, a Wild West fort whose convicts all sport black-and-white hooped uniforms. Alongside the more generic escape methods – like digging holes or cutting through fences – each jail has a set of bespoke escapes, tailored towards the number of players. And the pixel resolution has been doubled: it retains the simple charm of the original designs, but it's undoubtedly a better-looking game.

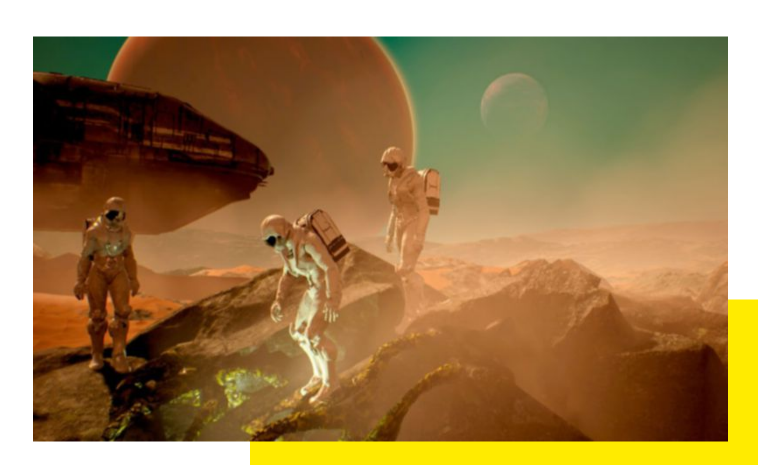
Combat, meanwhile, is less rudimentary than in the original, with blocks and rush attacks, while you'll have a better idea of who and who not to pick a fight with, since the weapons of tooled-up cons are clearly displayed. And there are no cutaways: everything plays out in realtime, so you'll see guards carrying you to the infirmary or solitary confinement. Spells in solitary can be accelerated by completing a simple potato-peeling minigame. There's a wider range of QTE styles for your prison chores, too. And the new game will have a much broader customisation palette. "Last time I checked, we had 278 different [cosmetic] unlockables," Towell says. "I think we've actually got more haircuts in this game than there exists in real life."

"IT BECAME APPARENT WE WEREN'T BEST TO GO INTO FREE-TO-PLAY MAKING JUST WORMS"

Overcooked was made by a two-person team of ex-Frontier devs, and won Best British Game and Best Family Game BAFTAs. A Switch version is coming later this year







AVEN COLONY

Texas-based studio Mothership Entertainment (whose founder Paul Tozour is an ex-Retro Studios staffer) is behind this handsome city-building game with a sci-fi spin. It's a different kind of project for Team 17, since it was the label that approached the developer rather than the other way round. Mothership had already been working on the PC version for some time; Team 17 offered its expertise to help bring the game to PS4 and Xbox One. "They've used us almost like a development consultancy," senior producer Ian Pickles tells us. "They talk to our coding team and QA guys."

For the label staff, it has been a unique challenge to port such a PC-centric game: "Every bit of UI has been built from the ground up to work on console," producer Danny Martin says. "On PC, it's all very mouse-driven. So it's something quite different to what we've done before." That's also true of the game itself, which Pickles sees as an exemplar of Team 17's willingness to tackle any genre.

"It's an American partner, it's an Unreal project, it's a big serious game," he continues. "It's like we've added another page to the brochure. There's *Overcooked* and *Yooka-Laylee* here, all shiny and happy, and over there's a really deep, serious simulator that'll appeal to your *Cities* and *Alpha Centauri* fans. And it means our games-label meetings once a week are very varied."

"I REMIND THEM THAT HE'S A VERY RICH ROOFER THESE DAYS, THANK YOU VERY MUCH"

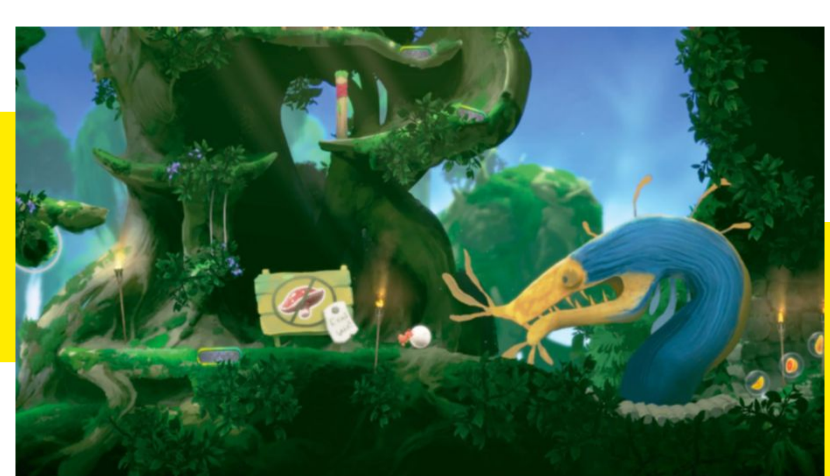
debut was a similar hit. "All the time our foundations were getting stronger and stronger," Bestwick nods.

Yet the studio wasn't living up to its name. "We had a company called Team 17 but the word 'team' wasn't in our business," Bestwick says. The major shareholder had lost interest in the game industry and was looking for a way out. Bestwick discussed the possibility of a management buyout, on the condition that she could bring someone from outside the industry into the business, a decision she says could be a lesson to all developers. "Team 17 had a couple of weaknesses: one, they couldn't control their budgets. And two, the operational management was weak. We had a major shareholder that wasn't leading the company in terms of driving it forward." Bestwick put a proposal to him, and the deal was agreed – eventually. "I'd love to say it was that simple," she laughs. "The process took about a year."

Her new business partner and fellow shareholder was Paul Bray, who became the company's finance director in early 2010. They put together a plan to completely reorganise the business; two years later, the company was profitable again. "We had to make a lot of hard choices [during that time], and a lot of lessons were learned," she says. "But I think probably the proudest part was that at the end of those two years, besides sustainability and profit growth – which is important when [you're] responsible for a lot of people's wages, mortgages, their kids' school fees, things like that – we had a team spirit."

It sounds unlikely, but Bestwick and Bray developed a strong esprit de corps, using a variety of methods to foster a feeling of togetherness. One simple change saw the company adopt an entirely open-plan layout. "Paul and I don't have offices," she says. "We're available to anybody – anyone can interrupt us at any time. There's complete visibility. Our old place was very old-school: probably about 50 [separate] offices with lots of small teams. I could spend a week in the office and not see probably two-thirds of the people working in the company. That's insane, right? But there's a saying: the least common thing is common sense. And sometimes we get so busy, and so entrenched in what we're doing, we forget the basic principles of just shouting over to somebody, just talking to another person. So it was about making people believe in themselves."

The open-plan restructure was a start, but the company culture needed to change, too. These days, Team 17 hosts



***Yoku's Island Express* is a recent addition to the games label's growing roster. It's a colourful combination of pinball game and platformer**



Producer Christie Sandy began her career at Team 17 in the QA department. She now has a key role as part of the game-incubation programme

more social events and team-bonding exercises for its staff alongside game jams and game nights. Every Friday, everyone finishes an hour early for a usability session that combines work and play: drinks and snacks are brought in while staff play current builds of games in development. It allows those working on one title to sample the rest of the company's portfolio, while providing an opportunity to gain expert feedback on their own work. And the open-door attitude extends to allowing anyone in the company to supply recommendations for Team 17's games label. "I'm not saying the accounts department are great at it," Bestwick smiles, "but you never know, right?"

It was the CEO herself who picked out the game that would go on to establish Team 17 as a publisher, and make its creator a millionaire. Chris Davis had launched a Kickstarter campaign for his prison-set strategy game *The Escapists*, raising a modest, four-figure tally that enabled him to work on the game full time. Bestwick contributed £100 of that figure, a pledge that allowed her to email Davis. By a stroke of good fortune, it turned out he was based just 20 minutes away from her home address. The two arranged a meeting. "I thought I could charm him into being one of the key titles on our games label to announce and really get this thing going," she says. "He turned me down."

But Bestwick persisted. She kept on at Davis, eventually discovering he was a fan of the studio's 1993 platformer *Superfrog*. She invited him up to Wakefield, suggesting he bring a build of *The Escapists* to check up on her investment. "He put his laptop on the table, and it was the oldest laptop you've ever seen in your life," she tells us. "I mean, we weren't cutting-edge – we're an independent company, so we look after our budgets – but that was *old*. And he shared his story – he was working on building sites, putting up roof tiles – and I shared a little bit about what we wanted to do with him, and said, 'No pressure.'" Davis left that day, and phoned Bestwick later that evening, asking her how soon she could get him a contract. "You're going to have one in 15 minutes," she responded.

The game still needed plenty of work once the deal had been signed. Davis had developed *The Escapists* using a little-known software creation tool called Multimedia Fusion. "I've spoken to some of the biggest developers in the world who go, 'What?' – and I say, 'Don't worry, we Googled it too,'" Bestwick laughs. She decided Team 17 would mentor Davis, teaching him Unity and developing his skills while working to establish *The Escapists* not just as a one-off game, but as a series. "And meanwhile, I'm going to have fun trying to explain to Microsoft and Sony that the game I'm going to be pushing the most this year is from a roofer," she says. "He's still known as the roofer by many of those people at those companies. And I remind them that he's a very rich roofer these days, thank you very much."



Team 17 put a team alongside Davis to help him port *The Escapists* onto consoles, with the game having to be completely rewritten in Unity. It later came to Xbox 360, the result of a late-night phone call from Bestwick to the development team. It was, she had reckoned, the 360's last Christmas, and with the audience for *The Escapists* overlapping with that of *Minecraft* and *Terraria*, it seemed ideal for a tilt at the Christmas market. One problem: it was already the end of October. "It meant delaying the release of *Worms WMD*, because we had to take a couple of people from there, but I said [to the dev team], 'Can I have it?' and they said it would be ready for submission by the end of November. They did the whole thing in seven weeks. It was phenomenal seeing that happen." This, she says, spoke volumes for Team 17's agility as a studio. "Most people would still be having that *discussion* after seven weeks, never mind having done it, got it through certification and out."

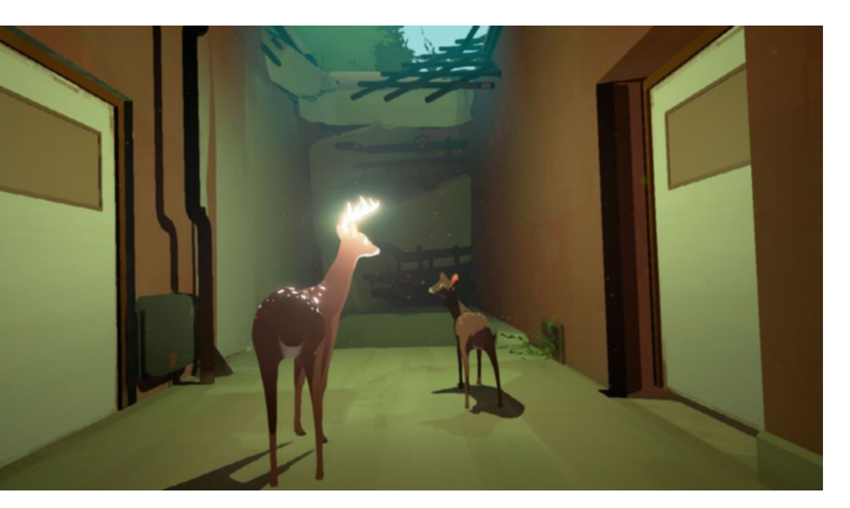
The Escapists was, of course, just the start. *Beyond Eyes*, a thoughtful short-form adventure, followed; then came Ghost Town Games' rambunctious BAFTA-winning multiplayer hit *Overcooked*, and, most recently, Playtonic's *Yooka-Laylee*. Another success story was Unicube's atmospheric survival game *Sheltered*, whose creators quit their day jobs to move closer to Team 17's Wakefield headquarters, where they were taught Unity. The game has since generated a seven-figure revenue, enough for its makers to move back to Shrewsbury and hire their own staff. "For me, that's a huge tick," Bestwick says. "The guys at Ghost Town Games? More than sustainable; they're ▶

FLEDGE OF 17

During our visit, we're introduced to the latest recruit to the studio's incubation programme, though his game is still shrouded in secrecy – indeed, Team 17 is only prepared to give us his first name. Alex's previous day job was as a creative writer for Groupon. Now he's making a 2D side-scrolling adventure about a journalist infiltrating a cult, with elements of stealth and emergent gameplay, and an anarchic tone Bestwick likens to Spectrum/C64 classic *Skool Daze*. Alex first introduced the game to Team 17 after wrangling a short meeting with them at Gamescom. He showed off a short video to introduce the concept, and the publisher was sold. With the studio's help he's now learning Unity; producer Christie Sandy sets him targets for his monthly visits, though he'll be making a more permanent move to Wakefield to work in-house with Sandy and a team of eight or nine staff to develop the game. With its plentiful opportunities to create mischief, and its versatile approach to puzzle-solving, it's little wonder Bestwick suggests it has similar breakout potential to *The Escapists*.



Ian Pickles is a senior producer within Team 17's games label



Anthony Tan's *Way To The Woods* came to Team 17's attention after he posted art of the game to Reddit and it was shared by Sean Murray

COLLISION CORPSE

Standalone spin-off *The Escapists: The Walking Dead* seems the most unlikely of collaborations, particularly given the disparity between the game's lo-fi trappings and the cultural heft of Robert Kirkman's seemingly ubiquitous zombie series. So how did it happen? "We were talking about supporting *The Escapists* post-launch, and came up with the idea as an extension to the original game," creative director Kevin Carthew says. "It was very contemporary, very current, and the theme seemed to be a really good fit. The more we looked, the more we got excited by how these two IPs could come together, and the more it seemed we could transpose those gameplay mechanics quite neatly into the licence." Against the odds, it worked, though Bestwick is keen to remind us this wasn't Team 17's first cross-promotion. "We did one of the first-ever promos in a videogame with *Superfrog* and Red Bull in '93," she says. "We didn't get paid for it, but we got a ton of Red Bull."





Production director Kel Aston (top); finance and operations director Paul Bray

having a great time. These are companies that didn't exist. So when I sit there and think, 'Are we doing good?' Of course we are. But we're making a difference now to people's lives. It'll sound cheesy, but I love my industry, and this is our way of giving something back. Already in our first few years [as a games label] there are four new teams in the UK that are now sustainable businesses with successful IPs, and a few of those will become franchises. That's making a big difference."

Bestwick says there's one question she asks all developers she's planning to sign: where do you want to be in two to three years' time? She's cognisant that not everyone wants the same thing. Some may have grander plans, while others are happy to stay small. "Ollie and Phil [from Ghost Town Games] are a great example: I don't know that they'll ever build a big studio in the UK, but they seem very happy doing what they're doing. And Chris [Davis] – we couldn't get him out of working in his bedroom for two years, because that's the way he wanted to work. So we don't necessarily change things on that side."

Indeed, the label doesn't have a one-size-fits-all plan when it signs a new game, offering different kinds of support depending on the developer's needs. That help can range from general coding advice to assistance with network issues, though Team 17 now has the resources to help in other areas. "Production values have gone up in the last three years," Bestwick says. "Some of these games wouldn't get made [without extra help] because studios can't afford artists or whatever. If they need artists, if they need designers, if they need extra code resource – they can take it. This allows them to compete on a much higher level than they could alone."

The company is also equipped to deal with operational issues on the business side. "That might sound completely boring to most consumers who play videogames, but in order to allow these companies to make the kind of games they want to make, they need to know this stuff," Bestwick says. "I've read office leases on many development studios' premises in the past few years just to give them advice. With some of them it's just rent negotiations or helping them claim back R&D tax credits in the UK. Or [drawing up] business plans so they can hire in the right manner."

Sometimes the studio's responsibilities stretch further still. That's certainly the case with Anthony Tan, the young developer of nature adventure *Way To The Woods*, who had, appropriately enough, just turned 17 years old when he signed. He's now part of the same incubation programme from which Chris Davis and Unicube benefitted. Bestwick was 17 when she joined the game industry, too, and recognises her obligation to the teenager. "He was sitting GCSEs last year. And I don't put pressure on him for release dates. If he says, 'I've got exams,' I'll say, 'Well, focus on your exams.' I'm not going to be the one in ten years' time that he comes back to and says, 'You screwed up my exam results because I made this game for you.' I hate to say it, but it's almost parenting at times."

In other words, Team17 finds ways to absorb the pressures that face many fledgling game studios, letting them get on with the important business of making games. And much of this is thanks to the groundwork laid down in earlier years. And, of course, those weaponised annelids. "I say this to a lot of people," Bestwick tells us. "We're not in the business of signing a dev and a game for a quick fix. What's the point? If Team 17 want to make a few hundred thousand very quickly, we have our own IPs and our own portfolio. We can put them on sale on many platforms. We don't need games-label titles to become hugely profitable or successful. We are independently fine. So those pressures don't [apply to] us."

Nevertheless, to ensure it can give each developer the full support it needs, Team 17 has had to be picky over the titles it chooses to publish. When the label first started, there were just a couple of staff looking at submitted games. Since then it's expanded quite significantly: last year, it received over 1,500 submissions; between October and Christmas alone, its team saw 400 games. Of those 400, Team 17 signed one. "Our curation programme is phenomenal," Bestwick says. "It helps that we're gamers, so we're the audience too. What we look for is 'different'." She doesn't sugar-coat any potential problems, either. "We know we won't succeed with everyone, but we apply a lot of common sense and commercial reality to the selection criteria. Some developers have signed with us because we were the most honest that they'd spoken to."

Having recently recruited its 100th staffer, Team 17 now has the personnel to sign up more games: we're shown four during our time at the studio, and there are others in production that are yet to be revealed. But Bestwick is still wary of the studio taking on too much, lest it spread itself too thinly, aware that some of the people that have signed up have made significant sacrifices to get there. "Look at *Overcooked*: they used their life savings. Some of these people have got spouses working two jobs. That responsibility sits on my shoulders – on our shoulders as a company. So when people say, 'Can you sign more games and just do more of this?' I'm like, 'Whoa!'" In fact, Team 17 only launched two games in the last fiscal year – *Overcooked* and *Worms WMD* – and with good reason. "We put so much focus into ensuring developers get the best opportunity. They deserve that from us."

These partnerships are mutually beneficial, too. For the studio's in-house teams, this diverse portfolio makes for a more creatively fulfilling work environment. Where previously





an artist might have been working on the same game for three years, they might now find themselves on one game for six months, or even less, as they shift between projects as necessary. Bestwick cuts to the heart of why it's working so well: "Strip away all the razzmatazz, and what this is is simply a bunch of game developers working with other game developers."

Now, Team 17's aim is to spread its wings and embrace the international market. Everyone in the UK game industry is familiar with Team 17, but its name perhaps carries less cachet abroad. Recently, it sold a minority stake to private equity specialist LDC, whose affiliation with Lloyds Bank should, Bestwick reckons, open a few doors. And the $20 million raised will allow it to accelerate its plans for expansion. "We've made no secret that North America is very important to me and to Team 17," Bestwick says. "Now we have proof that this works, [our job] is to spread that message, and open it out to more developers."

This year's signings are testament to that global push. *Genesis: Alpha One* is being made in Germany, while Mothership Entertainment, with which it has partnered on sci-fi city builder *Aven Colony*, hails from Texas. There are other, as-yet-unannounced games from Sweden and Finland, and one more from the UK in its incubation programme. "This is about taking it international, but doing it in a controlled way," Bestwick tells us. Even so, she's aware that there's some way to go before Team 17's name isn't solely synonymous with *Worms*. "I need a few more hits to stop that completely, I guess," she admits. But as she counts out the games the label has recently released, and those set for launch later in the year, it's clear that one of the UK's oldest studios is thriving like never before.

For its CEO, the studio's longevity is a vindication of her willingness to tear up the rulebook. "I'm notorious for ignoring a lot of what is normal," she says. "I like to do things a little differently." And while Bestwick was awarded an MBE for her services to the industry last year, it's the gamble she took on an unknown creator almost four years ago that may be the defining moment of her 30-year career, and of informing the current direction of the company she runs. "One of my proudest achievements is seeing something like *The Escapists*, from an everyday guy who's now a multi-millionaire. And finance is one thing, but that guy went and bought his mum and dad a house last year." She pauses and smiles. "I helped him with his solicitor, and that's not what publishers do either. But seeing how that changes lives – it doesn't get any more rewarding." ■

"I'M NOTORIOUS FOR IGNORING A LOT OF WHAT IS NORMAL. I LIKE TO DO THINGS A LITTLE DIFFERENTLY"





The company's move to open-plan offices has built a more convivial creative environment, making it easier for staff to discuss projects with one another

GENESIS: ALPHA ONE

This genre-hopping game is one of the label's most exciting projects. It comes from a small team at Radiation Blue, a studio boasting talent from Crytek, Yager and Io Interactive. Part Roguelike and part FPS, with elements of base-building and survival sims, it follows a mission to colonise planets after Earth's resources have been depleted. Resources you harvest can be used to boost the resistances of the clones that man your ship, which you can customise by bolting on new modules. And besides inhospitable conditions on the planets you visit, you'll also have alien aggressors to contend with.

"We're not helping them with development," Pickles says. "They're handling that, including the eventual console releases. What they wanted was [assistance] on the commercial and marketing side. They're nervous talking to press, so we're helping them with that." That said, the weekly usability sessions proved useful in identifying a flaw, prompting a change to the game's design. "When you die, you [assume the role] of the highest-ranking clone," Martin explains. "But when we played it, we built a massive ship, and I died and the nearest clone was basically the length of the Battlestar Galactica away. The entire ship burnt as I ran all the way down the other end. So now we have elevators, and that means we can now also have vertical ships."

THE MAKING OF...



SUPERHOT

How a small group of developers cultivated a single, simple concept into the most original firstperson shooter in years

By Edward Smith

Developer/publisher IMGN.PRO, Superhot Team
Origin Poland
Format PC, Xbox One
Release 2016

Time moves only when you move. For the game makers attempting the 2013 Seven Day FPS Challenge, nothing could have been further from the truth. In the space of a single week, their task was to concept, create and fine-tune a working first-person shooter. The clock was running and competition was stiff. The previous year's stand out, *Receiver* by David Rosen, had captivated players with a highly detailed simulation of disassembling and reloading a gun – to get noticed this year, contestants not only needed to make something quickly, they had to come up with a simple, unique hook, too.

Flash developer Piotr Iwanicki had a plan. Inspired by an online game called *Time4Cat* – a web game in which threats only move when you do – Iwanicki assembled a group of mobile-game developers and game-design students for the challenge. Forgoing sleep, they created a prototype and called it *Superhot* – named after the types of feelings Iwanicki expected it would evoke: 'super' for positivity, and 'hot' for intensity. Its simple premise – a shooter wherein bullets and enemies would only move when the player did – leant *Superhot* an immediate appeal, repurposing traditional FPS mechanics into a puzzle game while making the player feel like a superhero. In the wave of publicity that followed, Iwanicki saw the opportunity to turn his seven-day concept into a fully-fledged game. For a moment the game stood still as Iwanicki basked in his success. But with developers from all over Poland enamoured with its prototype, production of a much more complex version of the game would soon begin – Iwanicki just had the small task of assembling a team first.

"I was supposed to have been at the challenge," says **Cezary Skorupka**, writer and level designer at what would later be dubbed Superhot Team, "but I was working at the time at Flying Wild Hog, the studio which made *Hard Reset*. When the prototype got released online, I just felt like, 'Oh my God. Why am I not working on this?' It was a huge thing on the Polish game-development scene. There was nothing, and then it exploded out of nowhere. But still, Piotr was trying to recruit people onto it for about a year, so we met once or twice and talked about the story and the vision, and after a lot of organising I quit Flying Wild Hog and went to work on *Superhot*. That was one of the best decisions of my life."



Inspiration for *Superhot* occasionally came from real life. Designer Panos Rriska once found himself in the middle of a bar fight, and used it as the basis for the seventh level

By now it was February 2015, and two other game-makers had joined the team. **Panos Rriska**, a friend of Iwanicki's who'd approved design documents for the original prototype, was recruited to create levels. **Marcin Surma**, who discovered the game via a Facebook post, was tasked with art and visual design. His early work on the project helped refine the distinctive, minimalist look of the game.

> "IT ALREADY LOOKED STARK BUT THAT STRANGENESS HELPED US ATTRACT AS MANY PEOPLE AS WE COULD"

"I joined two weeks before we launched the Kickstarter," Surma tells us, "and my job was to make *Superhot* more presentable. It already looked stark – people didn't think of it as the weird game with the weird red guys, which was good, because we didn't want the look to be distracting – but that strangeness helped us attract as many people as we could."

"From the beginning, Piotr had a vision of something minimalistic and immediately striking," Rriska continues. "But our feeling was, 'If we get the Kickstarter money, great, but we'll find a way to make the game anyway.' By that time we also had Tomasz [Kaczmarczyk], our producer and business guru. He'd occasionally do this magic and come into the office and say, 'I just earned half a million złotys (£100,000) for us.' He had this way of finding money under a rock."

In the end, *Superhot*'s Kickstarter yielded $250,000 – more than double its original goal. That total, combined with the money conjured up by Kaczmarczyk, meant the team now had the capital to begin development. The prototype had been created using Unity, and the Superhot Team saw no reason not to build the full version the same way. It proved useful, initially: the angular, whitewashed visual style honed by Surma looked almost identical to the placeholder graphics in Unity's level editor. This spared artists from creating dozens of different textures, and also meant draft versions of levels could be rendered in-game almost instantly.

"Having worked with Unreal 3, my first thought about Unity was that it was an inferior tool, for people who don't work in big companies," Skorupka says. "But it was so easy to learn and, combined with a tool we had called Pro Builder, we could start and finish a level inside two or three days."

Rriska hadn't worked as a level designer prior to his appointment, so such swift iteration proved a useful boon and he and his team experimented with workflows. Eventually, buoyed by the abstract nature of the game, he settled on a freeform method that meant the fun of messing about with time was always front and centre. "Myself and the other designers would start by thinking of a place, say a prison," he explains. "Then we'd try to imagine something, some situation, that could happen in a prison and would be cool to play. After that I'd check reference images for the places and try to work out the architecture – there was a lot of changing the levels around, especially the backgrounds, and the entire team would hold conversations about how they should look. But the combination we had, of simple art assets, Unity, and some tools we'd built ourselves, made it easy to make and edit *Superhot*. I wouldn't call it an engine. It was more like an environment."

Building levels was simple enough, then, but getting *Superhot*'s central mechanic to actually work proved to be something of a sticking point. Slowing down time was easily achievable, and even running it backwards was workable, but to stop and start it dozens of times per level, with so many different objects and enemies on-screen at once, presented myriad problems.

"Physical objects in a game have a certain amount of 'ticks'," Rriska explains, "and the ▶

ticks dictate in which direction and how quickly the objects move. Once we started changing the flow of time in the game, we also had to change the ticks. But if we moved them too far forward or too far back, objects would start registering a single collision many times over – instead of dying properly, enemies would go flying miles backwards. So the whole game had to be made using hacks. We eventually got to a pretty stable environment with the physics, but if we moved or changed *anything* the whole thing would break. And if we wanted to put in a car or, for example, make a level set on a train, because those vehicles were moving faster than the characters it got very complicated trying to get them all working properly together. In the time it took to make those single levels, we could have made ten others."

Such complex physics, hashed together or otherwise, required a great deal of memory. The game's simple aesthetic belies hugely complex underpinnings, and in order to keep everything clipping along at a consistent framerate the team had to make dozens of cuts.

"Originally we had bodies that would stay on the ground," Rriska continues, "but they were cut. We had more particle effects for when bullets hit the walls. They were cut, too. *Superhot* wasn't like other shooters where you can have 99 health and if the game skips a frame you maybe take a hit and it's fine. If you got hit with one bullet you died, so it had to run perfectly."

Any time gained from the relatively fast construction of levels was soon eaten up by the need to optimise frequently. In some cases, this led to unforeseen frustrations. Once lingering corpses were removed from the equation, the team settled on the idea of having enemies shatter like glass when bullets – or hastily flung ash trays – hit them. However, *Superhot*'s now unfailing frame rate meant that every second of that animation had to be modelled in detail, which in turn meant that Surma and the art team had to spend days constructing enemy models from the hundreds of individual red triangles that would separate on death. The replay mode also proved problematic. Simply recording footage from in-game didn't provide a sharp enough image, and so a realtime solution had to be used. This, of course, meant that the game would have to remember the positions of each enemy and object, and render them fully. For three months, four of Superhot Team's staffers worked on the system. "The game was easy to make," Rriska says. "Then we spent two years optimising."

In other ways, however, this continual back-and-forth proved beneficial. *Superhot*'s original story saw players being manipulated and misled by a shadowy computer network, against which they would eventually turn and then destroy. Multiple redrafts produced a more sinister tale – instead of successfully rebelling against the system, players would be subsumed by it, killing themselves in the climactic moments in order to become one with the hivemind. After launching a beta, which comprised the game's first five levels, Skorupka and the other designers planned to work exclusively on *Superhot*'s second half, but these narrative changes meant reworking the game from scratch. Such profound revisions continued up to the last moments of production.

"After the beta, we basically deleted the whole thing and started over," Skorupka says. "We could clearly see what place the game was in. We'd watch people play the beta at shows and they'd turn around and say, 'This is fantastic!' However, we didn't let up with it. We knew our game better than anyone and we knew how it should work. Only about ten hours before it shipped, we went back and completely changed the plot. That sums up our process, I think. It was so easy to change things that we just couldn't stop doing it."

"But there was never any crunching," Surma adds. "Or if there was, it was all internal. Everyone wanted to make this game and to make it as good as possible, so it wasn't, 'You have to do it right now.' It was, 'I want to do this right now.' And it wasn't as if we had strict roles. From the beginning, *Superhot* was an idea that could be made quickly, by people who didn't know lots about creating games, so if someone wanted to do some programming it was like, 'Be our guest.' It was a good process."

On 25 February, 2016, less than three years since its inception at the FPS Challenge, *Superhot* launched. But while standing still is a crucial strategy in the game, it clearly didn't suit the team in real life.

"We filmed the moment that we uploaded the game – the whole group of us gathered around this one computer," Skorupka recalls. "I asked Tomasz, 'Is that it? Have you clicked it?' 'Yeah, I clicked it. It's online.' Everyone was just like, 'OK. Now let's go back and fix some bugs.'

Two months later the game made its debut on Xbox One, and a Rift version – which Skorupka describes as an opportunity to "get rid of all the stuff in the game that was boring or annoying" – followed in December before the team turned its attentions to other virtual-reality platforms. In 2017 a tie-in card game was announced and successfully crowdfunded. What started as a novel idea, shared between friends, had evolved into a sensation.

"I was watching people streaming the game and seeing the reviews," Skorupka says. "But I didn't feel like people were playing something I'd made. They were playing *Superhot*." ■

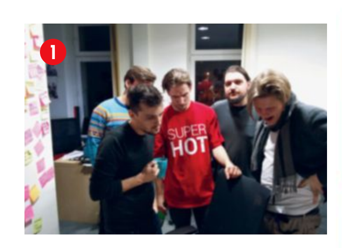


Cezary Skorupka
Level designer and writer

What was the trick to getting the time mechanic working?
When you look at the games that were made after *Superhot* the thinking seems to be, 'Let's make a game first then add the time only moves when you move mechanic after.' And it doesn't work, ever. So we did everything the other way around. We perfected the time-moving mechanic first then worked out everything we could do that would display it and make it enjoyable to play. We spent a lot of time making a cohesive plot and using it to connect all the levels together.

How much did you change for *Superhot VR*?
Basically we had to make the game from the ground up. We knew we had to keep some stuff like the aesthetics, time moves only when you move, etc. But the rest was unknown. We quickly discovered that some things work really well in VR, like dodging bullets, grabbing weapons in mid-air and shooting at close range, so we built a lot around that. Also, we rebuilt every level from scratch, added a new mode called Hacker Room and wrote a new, simpler story. So yes. It started as a simple port and changed into a totally different game.

What was the most difficult aspect of making the game work in VR?
Throwing stuff in slow motion. It's a nightmare and I think we ultimately failed at it. The problem is, everybody instinctively feels how it should work but when time moves only when you move the timing changes so you end up dropping everything at your own feet. We tried something like six different approaches, but nothing worked and the solutions often created other problems. In the end we left it as it was to start with, and hoped people would get it.

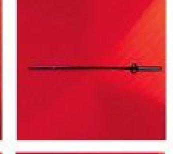






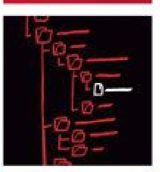




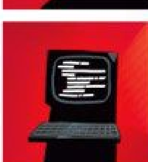


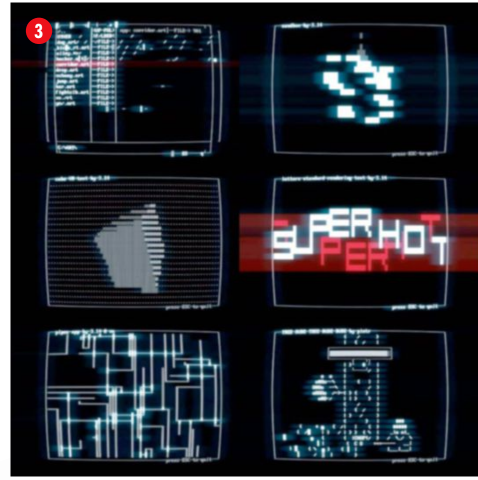


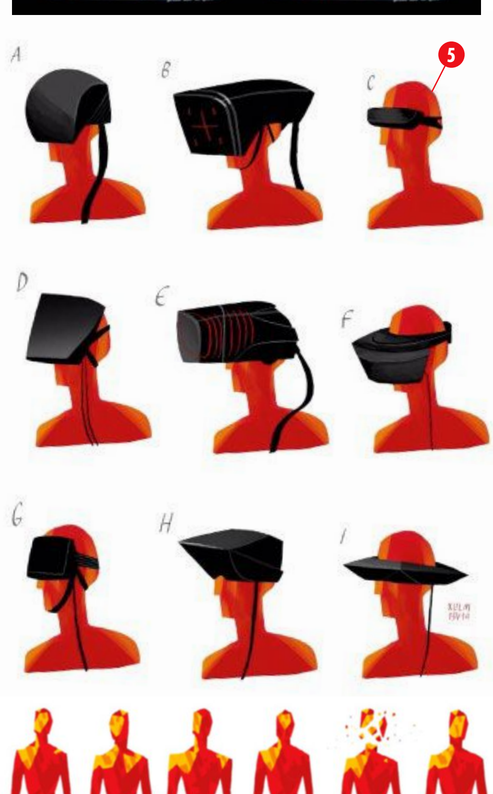


















1 After moving into its office in June 2014, the Superhot Team steadily grew from seven fulltime staff, at the start of production, to 13 by the game's release.
2 Compared to typical game-making, very little concept art was produced for *Superhot*. Unity enabled the designers to simply make, and if necessary delete, what they imagined in 3D.
3 The in-game computer interface was co-created by director Piotr Iwanicki and art designer Marcin Surma, who had a shared love for MS-DOS and the Amiga 1200.
4 To complete the effect of being trapped in VR, many of the surfaces and character models in *Superhot* were finished with diagonal, interlace lines, like the screen of a TV.
5 In the original draft of the story for *Superhot*, the protagonist was a woman. But for the finished game, it was decided none of the characters would have facial features.
6 Stark colours were used to make the world of *Superhot* easy to read and understand. Interactive objects are glassy and shiny; those that can't be used are matte and dull



STUDIO PROFILE

YAGER DEVELOPMENT

Why the studio behind Dreadnought and Spec Ops: The Line refuses to play it safe

By Ben Maxwell

Yager Development has come full circle during the 17 years it's existed. Founded by five friends in 1999, the studio slowly grew to around 20 people by the time it released its first title, futuristic flight-combat game *Yager*, in 2003. Excursions into anti-war surrealism and ill-fated zombie apocalypses followed – via, respectively, the critically lauded thirdperson shooter *Spec Ops: The Line*, and a short-lived collaboration with Deep Silver on the still yet-to-be-released *Dead Island* sequel – but the studio has now returned to its sci-fi roots with *Dreadnought*, another futuristic air-combat game centred on piloting spaceships and aircraft.

This thematic homecoming is aligned with a desire to return to the easy communication and fast iteration of those early years, before the studio's numbers swelled to more than 130. Finding a way to do that, however, is proving to be something of a sticking point. "Everything has changed," managing director **Timo Ullmann** tells us. "And we're probably making every mistake that you can make. In the beginning we were just five guys, and by the time we'd finished *Yager* we grew to about 20 people in house. When you're 20 people, you don't need any structure or a hierarchy, and everybody knows what's going on. You meet in the morning and for lunch, and the level of information is consistent throughout the company.

"When we took on *Spec Ops*, we grew from 20 to 80 people. That was a huge step – we suddenly realised that we needed some kind of structure, to introduce processes that allowed us to get information to everybody and make sure different parts of the company weren't moving in different directions. So we focused on producers – not only for each game, but overseeing the different departments, too."

In response to the quickly arising necessity to think more carefully about the way everybody in the studio interacts with everyone else, Yager Development has mutated into various forms over the years. During *Spec Ops*' development, the studio favoured a more traditionally hierarchical structure, which lasted until the game shipped, but it quickly became apparent that it wasn't the right fit ("We thought, 'OK, what can we do to make sure things don't become too strict or top down?'" Ullmann recalls). The next move was to switch to an agile-development model in order to try to ensure that everyone in the company felt responsible for their contributions. But that hasn't gone entirely smoothly, either, Ullman says.




Co-founder and managing director Timo Ullman (left) and *Dreadnought* game director Peter Holzapfel

"Some people, when they see something that's not working properly, say, 'OK, I need to do something about that and grab the right people to make it better.' But then there are other people who are *really* good at their job, but who feel lost if there's no overarching process telling them what to do. It's a constant battle, and I still feel that we haven't quite arrived at the place that we need to be – I do wonder if we'll ever be at a point where we can say, 'OK, now everything is working perfectly.' But the main mantra here is that we try to look at how we can support people in feeling ownership, and make sure that everybody can contribute on a more individual level. So no micromanaging people, but instead trying to help them unleash their creativity and keep their enthusiasm in what they're doing."

That enthusiasm hasn't been difficult to maintain, at least. While the studio's output has been infrequent – *Dreadnought* will be the studio's third completed game if you discount *Aerial Strike*, the PC version of *Yager*, which added a multiplayer component to the original – it has been defined by a sense of free-spirited creativity and a determined disinterest in doing things by the book. *Yager*'s huge levels and polished visuals, for example, while slightly undermined by a delayed release, set high standards for the genre, and the nimble nature of the multipurpose Sagittarius ship at its centre introduced some innovative combat ideas. *Spec Ops*, meanwhile, presented itself as a traditional thirdperson shooter but then aggressively subverted the form while toying with players'



Founded 1999
Employees 110
Key staff Timo Ullmann (managing director), Philipp Schellbach (director of development), Jonathan Lindsay (executive producer *Dreadnought*), Peter Holzapfel (game director *Dreadnought*)
URL www.yager.de
Selected softography *Yager, Spec Ops: The Line*
Current projects *Dreadnought*

expectations. Neither game was hugely successful commercially but, crucially, both were passion projects first, and products second.

"Yager does projects that are quite special," says *Dreadnought* director **Peter Holzapfel**, who worked on the *Crysis* series at Crytek before moving to Yager Development four years ago. "They're sort of mainstream, but not – it's one of the things that attracted me to *Dreadnought*. *Spec Ops* is similar; it's a contemporary military shooter, which is more or less the biggest thing on the planet right now – or it feels like that, at least – but they did it in a way that it became something else.

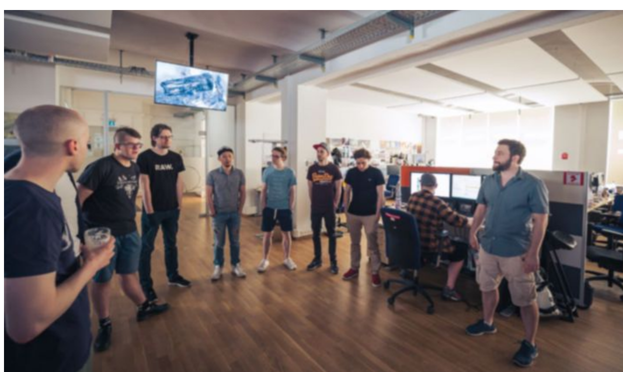
"YAGER DOES PROJECTS THAT ARE QUITE SPECIAL. THEY'RE SORT OF MAINSTREAM, BUT NOT MAINSTREAM"

"When they pitched *Dreadnought* to me and I started getting interested in joining, that aspect was what pulled me over here. We have these big spaceships, with all this massive pop-culture pull, but there are no big spaceship games out there that are like *Dreadnought*. That means there are a lot of creative challenges, and there's never just a standard formula that we can apply.

"And that's reflected a lot in the studio culture here. It's a pretty open studio where there are lots of people who've been around for a long time. And there's this spirit where you can bring ideas from whatever corner, and they're at least listened to – you can't do everything that people suggest, obviously, but it's an open dialogue and that's something I really enjoy."

But while *Dreadnought* is born from the same kind of creative, wish-fulfilling thinking that underpinned its forebears, Yager Development is hoping for financial, not just critical, success this time around. In addressing that problem, the studio elected to make the game free to play – a decision that caused some friction initially.





Yager Development's spacious Berlin offices are on the second floor of a building that looks out onto the River Spree. The studio splits its staff into multidisciplinary teams of around ten people, who function mostly autonomously and focus on specific parts of the game

"We were concerned in the beginning," Ullmann admits. "And when we finally said, after thinking about it, 'OK guys, we'd really like to embrace free-to-play,' there were some people who were still sceptical about it and thought that we were moving a bit too far away from what we have done before. Some of our developers were worried that we were going to go to the dark side and try to rip people off. But I think as we began developing the game and they saw how we wanted to approach it, a lot of people were convinced that this was still something they could be enthusiastic about. We had to actively address that, and set out how we wanted to go about it – make sure that they knew that there would be no pay to win, and that you can definitely play it for free, and all that stuff. But going free-to-play is a means for us to open up the game to a much, much bigger audience than we could have hoped to find with *Spec Ops*."

Switching from what could be broadly described as a fire-and-forget model to a service-based outlook has come with its own challenges, of course. "That's an aspect that we really had to learn about the hard way," Ullmann says. "The game needs to be out there 24/7, so you can't say, 'Ah, I'll get back to it in a month or so.' You have to make sure that the service is always there. That's something that we really needed to get our heads around as a traditional retail developer – working on something for three or four years and then releasing it is a totally different beast to this. It's out there, at that point – you can do patches, but you can't actively work on it. But the beauty of developing *Dreadnought* [as a free-to-play game in closed beta] is that we've been able to adapt to where we feel, and where the community feels, the game should be."

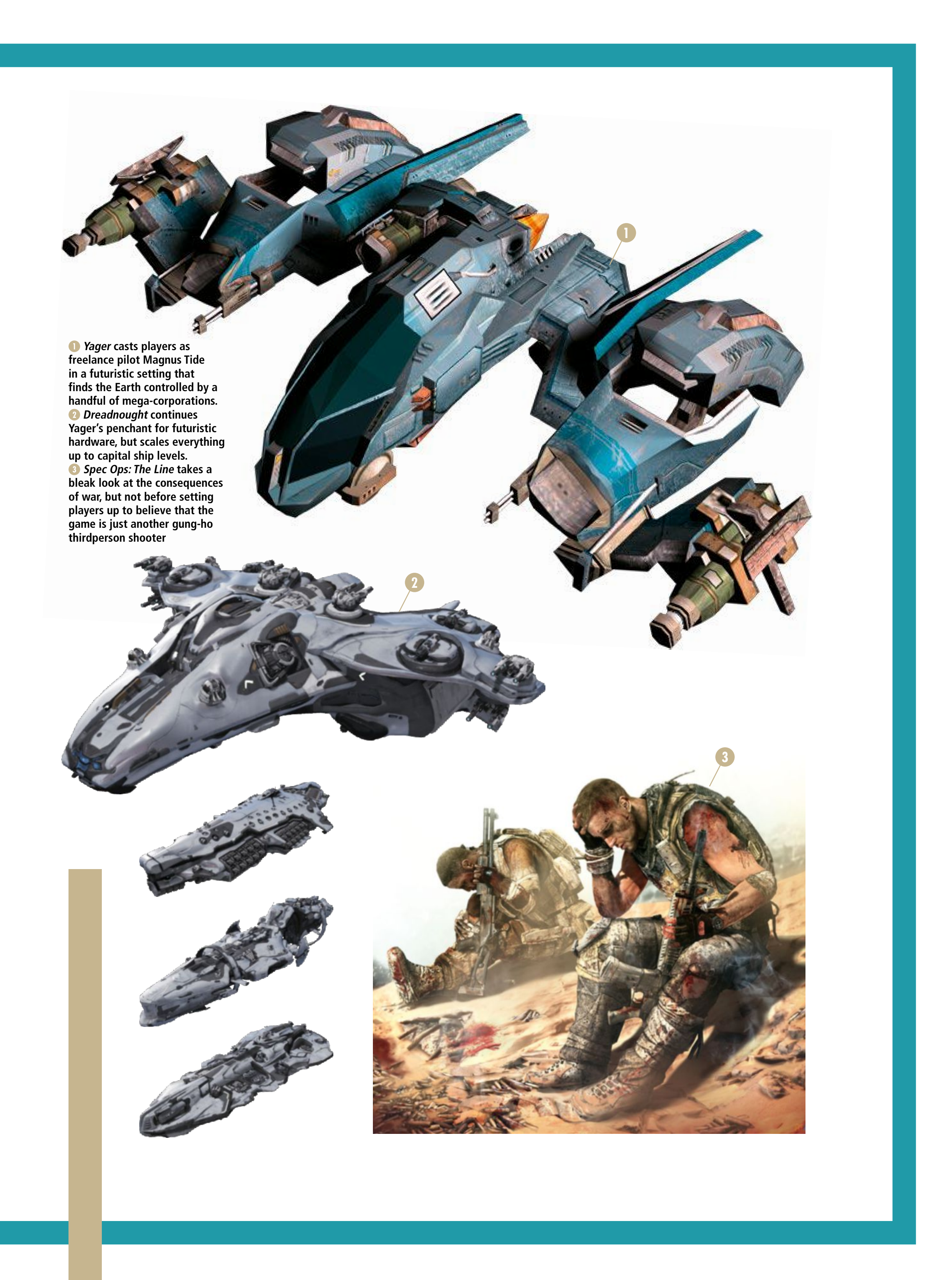
In fact, Yager Development is so enamoured with the model that it's already considering how to go about starting a second project along similar lines – one that carries over the lessons the studio learned while developing *Yager* and *Spec Ops* even more extensively – and, with any luck, redefine players' expectations for free-to-play games. It's an ambition we've heard plenty of times before from other studios, of course, but given Yager Development's track record for subverting existing paradigms, perhaps this time there's good reason to be less sceptical.

But the problem with constantly shifting between styles and, to some extent, business models is that you risk losing momentum. Despite the studio's rather pragmatic moniker, many will only know it as the developer behind *Spec Ops* (or, less positively, the one that was incorrectly rumoured to have gone bankrupt after breaking off ties with Deep Silver and problematic *Dead Island 2* development). While it has lots of experience with spaceships, it's unlikely to carry many *Spec Ops* fans over to *Dreadnought*'s profoundly different genre and outlook. Is the studio worried about having to build an audience from scratch with each new project? "It's difficult," Ullmann muses. "With *Spec Ops* it was quite different; the cool thing is back then 2K asked us to do something with that franchise and we could basically own it. They said, 'Here's the franchise; do you feel like doing something with it?' And we said, 'If we have a lot of creative control over what we would like to do, then yes.' That makes it easy to feel that ownership, and also be able to make certain decisions on your own.

"SOME OF OUR DEVELOPERS WERE WORRIED WE WERE GOING TO GO TO THE DARK SIDE AND TRY TO RIP PEOPLE OFF"

"With *Dreadnought* it's all our own creation. That really helps because people like Peter and Matias [Wiese, art director] are living and breathing that world of [pop-culture sci-fi] and they can put that into the game. It's a tremendous help when everybody is working on something they love and it's not just work made for hire."

Perhaps Yager Development's approach is best encapsulated by its willingness to try new things, and the team's apparently boundless enthusiasm for leaping in at the deep end. It's a model that, by its nature, diminishes the potential for consistency when it comes to messaging. Even so, while *Spec Ops* – despite its subversive nature – arguably has more obvious mainstream appeal and casts a long shadow, *Dreadnought* shares much of its creative DNA. Holzapfel certainly doesn't see any disadvantages to the studio's bold decision making. "I know what you mean; some studios are known for a certain type of game, and Yager is very much defined by *Spec Ops* because so many people loved it," he says. "But the thing that I think is a constant in everything we do is that nothing we make is ever a straightforward thing. It's always something with mainstream appeal, but that nobody has done before. *Spec Ops* is probably the first anti-war triple-A title out there, and *Dreadnought* is the first big-spaceship game that focuses more on the intense action and pop culture aspect of it. Finding something that has broad appeal, but then figuring out how to do it in a different way – *that's* what defines Yager for me." ■



1 *Yager* casts players as freelance pilot Magnus Tide in a futuristic setting that finds the Earth controlled by a handful of mega-corporations. 2 *Dreadnought* continues Yager's penchant for futuristic hardware, but scales everything up to capital ship levels. 3 *Spec Ops: The Line* takes a bleak look at the consequences of war, but not before setting players up to believe that the game is just another gung-ho thirdperson shooter

PLAY

REVIEWS. PERSPECTIVES. INTERVIEWS. AND SOME NUMBERS

STILL PLAYING

Ultra Street Fighter II Switch
Yes, it's too expensive. And judging by the combo videos we've seen Capcom didn't spend long balancing new additions Evil Ryu and Violent Ken. Yet there can be no disputing the rock-solid foundation on which this undercooked, overpriced update has been built. The offline AI is the same input-reading mess as ever, and the delay-based netcode's not great either. Yet we can't put it down. Our 85 per cent ranked-match win record may, in fairness, have something to do with it.

What Remains Of Edith Finch PS4
The beautifully conceived cannery section – in which you play through a daydream with the left stick while carrying out repetitive manual labour with the right – may be the standout, but Giant Sparrow's game is brilliantly designed throughout. No other so-called walking simulator has done such a clever job of leading us through its world, its blend of level design, camera positioning and putting every line of dialogue into the world meaning we're never in with a chance of getting lost. A marvel.

Rime PS4
It might be about a small boy, but we do not especially recommend playing through Tequila Works' intoxicating adventure with the real thing. Young souls are inquisitive, of course, and on certain days we suppose that can be part of the charm. Yet *Rime*'s opening moments prompt an incessant barrage of questions we don't know the answer to. Why is the boy on an island? Why does that pig like apples? Why, when you shout, does a blue trail of wispy light fly off into the distance and change the colour of that bunny statue? Well, look, we don't know. We think it's a fox, actually, but never mind. How about some Peppa Pig?

REVIEWED THIS ISSUE



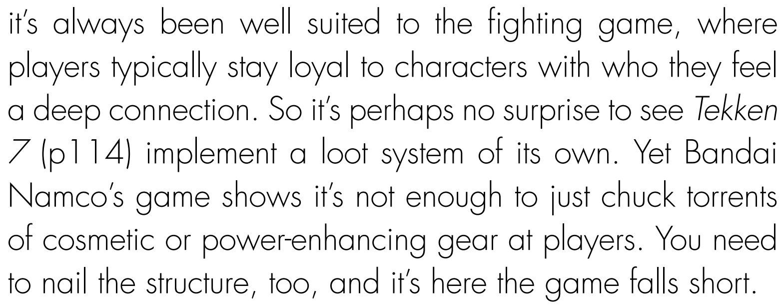
Explore the iPad edition of Edge for extra Play content

It's a knockout

For all its faults, *Street Fighter V* imparted a vital lesson to those who make fighting games for a living. The accepted standard for games in this genre is that any singleplayer component will forever play second fiddle to multiplayer, whether online or off. Yet one of the most widespread, and most surprising, criticisms of *SFV* was its lack of an Arcade mode. On the evidence of this month's Play crop, it's a lesson that's been learned by developers.

Leading the pack is *Injustice 2* (p110), which sets a new standard for the singleplayer fighting game with its sprawling, endless Multiverse mode. On top of that sits a loot system which, while hardly offering the game-breaking power of some of the games from which it takes its inspiration, adds a motive and a reward to playing the game offline.





Loot is a powerful hook in games of all stripes, admittedly, yet in retrospect it's always been well suited to the fighting game, where players typically stay loyal to characters with who they feel a deep connection. So it's perhaps no surprise to see *Tekken 7* (p114) implement a loot system of its own. Yet Bandai Namco's game shows it's not enough to just chuck torrents of cosmetic or power-enhancing gear at players. You need to nail the structure, too, and it's here the game falls short.

Trust Nintendo to be different. *Arms* (p102) has a loot system of a sort, but Nintendo is more preoccupied with changing the fundamental nature of one of the most intoxicating, but off-putting, genres in games. By dramatically lowering the fighting-game skill ceiling, reducing its move lists and combo patterns to a handful of simple motion inputs, *Arms* shows that the best way of making players stick with your game isn't a matter of content or structure – but good, old-fashioned, peerless game design.

Arms

As you'd expect from the name, being able to throw a proper punch is the most important thing in *Arms*. Use the recommended control scheme – the Thumbs-Up Grip, with a Joy-Con upright in each hand – and chances are you'll quickly realise you naturally curve your real-world punches; that won't do in *Arms*, where simply getting an enemy into a punchable position frequently feels like the hardest thing. When you've finally pinned them down, the last thing you want is for your execution to let you down.

But saying that, punch *control* is the most important thing in *Arms*. You need to hit things, sure – but you'll often want to miss on purpose, sending out a limb to block off an escape route. Master Mummy's hulking Megaton fist is slow, and easy to avoid if you see it coming. If an opponent sends one out to your right, you're going to go left; a canny foe, knowing this, will send a follow-up punch in the direction to which they've just tricked you into heading. Being hit in the face is bad enough; knowing that you walked straight into it is even worse.

Especially if the fist in question had been charged up – since that, really, is the most important thing in *Arms*. While the methods of doing so are largely universal across the cast – blocking for a while, holding the jump button until you touch the ground again, or likewise with a dash – some characters get a new ability when their arms are charged, and every fist type takes on a new property. Some get bigger; others faster. They might stun an opponent with electricity, knock them to the ground with fire, or lock them in place with ice.

Really, though, none of that matters unless you get your arm selection right, which is the most important thing in *Arms*. Each of the ten characters will have, once unlocked, a pool of 30 fists to choose from, and can take a loadout of just three into battle. Some fly straight, some in a curve and others randomly, while some have homing properties. Some are slow to start up, but eventually emit bursts of laser fire. One bounces along the ground, and if it hits your opponent, will explode and leave an inky mess on their screen. Ensuring you take a good loadout – not only to suit your attacking style, but also to counter anything your opponent might throw at you – is the true key to success.

That's true, but none of that's any use if you don't base your playstyle on the designs of each stage, which really are the most important thing in *Arms*. Some prompt simple battles over the high and low ground; others change over the course of the match, revealing a central trampoline, for example, that makes your movement easy to predict when you step on it. Others have controllable platforms, or pillars that canny players will stay behind for cover, using arms with curved trajectories to punch enemies from out of sight. Or there might be trampolines around the perimeter of the stage, which not only allow you to mix up your angle of approach, but also to extend combos after downed opponents bounce back into the air.

Developer/publisher Nintendo
Format Switch
Release Out now

You need to hit things, sure – but you'll often want to miss on purpose, sending out a limb to block off an escape route



All of that can be mitigated with good defence, which is why blocking is the most important thing in *Arms*. The camera is positioned tight behind your fighter, and curving arms are hard to track. And while you'll want to keep moving to make life as difficult as possible, you'll occasionally be boxed in with no escape route, and will need to put up your guard, bringing the two Joy-Cons together in front of your chest.

We say that, but now we think about it, defensive punching is the most important thing in *Arms*. Punches that meet in transit will cancel each other out, limbs flopping hopelessly to the floor before recoiling back to their sender. Wait until an opponent's punch is about to connect, then quickly jab it away, and you've got a clear window for a reprisal. Throw attempts can be similarly batted away. Get it right, and you never need get hit.

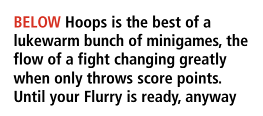
But, wait – in fact, mobility is the most important thing in *Arms*. Every character has a jump, and a dash, which can be performed on the ground or in the air, and some of the cast can perform one or the other multiple times. Ribbon Girl has a triple jump; Mechanica can hover in mid-air by holding the button; Ninjara has a teleport that makes punches pass helplessly through clean air. Character turning circles are slow, so a flighty foe can feel like an impossible one to fight. In a game whose punch animations can be measured in seconds, not frames, mobility is everything.

The truth of it, then, is that *everything* is the most important thing in *Arms*. Every character, arm type, stage design and strategic tweak can feel utterly transformative; the game pulls that magical trick of making its every component part feel irredeemably broken under certain circumstances, an even balance somehow emerging from the chaos. And by stripping away the fiddle and the faff of so many fighting games – being able to direct and control your punches properly is about the limit of *Arms*' skill ceiling – Nintendo has crafted a level playing field for combatants of all skill levels. Genre veterans understand the importance of adaptation: of identifying the kinks and tells in an opponent's strategy, and adjusting your approach accordingly. It's something that only typically comes into play when you've spent a couple of hundred hours in a fighting-game training mode, making execution a matter of muscle memory, and can let your brain focus on the finer details of a fight. Here, because the controls are so instinctive, adaptation comes naturally. Even fights between relative novices can have the back-and-forth flow of a high-level match.

With such magic at the game's core, it is a little easier to excuse its flaws. Perhaps most troubling of all ▶



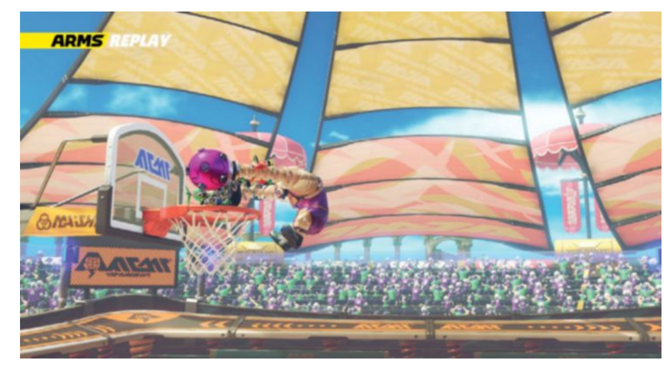
ABOVE The Hedlok fight can be quite frustrating, but it's all worth it when you and your team-mates chain Flurry Rushes to melt away his health bar in one combo.
LEFT Spectators – and, in co-op battles, downed combatants – can switch between a variety of camera angles, a feature that's also used in a rather bare-bones replay mode



BELOW Hoops is the best of a lukewarm bunch of minigames, the flow of a fight changing greatly when only throws score points. Until your Flurry is ready, anyway



ABOVE Min Min finally puts Barq & Byte, the most frustrating AI opponent, on the floor. Byte, a robotic police officer, excels at range, while Byte is an automated assist character that is a springboard as well as a boxing glove



When Twintelle is charging her arms, she generates a forcefield that slows down incoming punches. It's a fine defensive tool, but easy enough to counter: its duration is short, so you time punches to connect as it ends

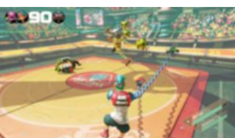
is that, while only rarely, it can sometimes feel as if the motion controls are letting you down. No doubt user error is to blame for, say, an intended grab attempt (punching with both arms simultaneously) coming out as two punches deployed a couple of frames apart. But occasionally there can be too much of a gap between intention and execution, and that simply evaporates when using traditional controls. Doing so loses a few abilities, however – you can no longer curl punches independently, or widen the horizontal range of a grab attempt – and it's a good deal less fun. And whoever decided to map blocking to a click of the left stick needs their head read. Putting your guard up when using motion controls isn't perfect either, in fairness. The game can feel uncommonly exacting when it comes to recognising the input, and we've taken a few smacks in the face that we didn't feel were warranted.

But that's nothing a minor patch can't fix, and Nintendo has already committed to supporting the game in the long run. While the company has been open in its intent for *Arms* to follow *Splatoon*'s lead – a slender launch package that is steadily expanded over time, for free – the fact remains that there's not much meat on the game's bones on day one. The singleplayer Grand Prix is Arcade mode by another name, its eight difficulty levels veering a little too quickly from doddle to waking nightmare. Fights are interspersed with minigames, which are also playable separately, and while there's a certain thrill to Hoops, which tweaks throws and Flurry Rush super moves to end with your opponent being flung through a basketball ring, other modes feel a little shoehorned in. V-Ball is a game of volleyball – volley*bomb*, really – that you never quite feel in control of, while Skillshot puts players at either end of a shooting range, awarding points for smashing targets and landing dings on each other.

Still, they do a fine job as pace-breakers, both in Grand Prix and the excellent online mode, which has lobby support for multiple players and lets those at the back of the queue instantly enter practice mode at the press of a button. Rather than a simple succession of versus battles, lobbies set a cumulative score target and then bookend fights with minigame battles and the occasional co-op scrap with Hedlok, a boss character with six arms. The decision to even award points to the loser is a masterstroke, ensuring those that are getting destroyed in the one-on-one arena feel like they are still within touching distance of the ultimate prize.

That is *Arms* in a nutshell: it is a very Nintendo sort of fighting game, just as *Splatoon* was a very Nintendo kind of shooter. It removes much of the skill barrier that deters far more people from the genre than it attracts, and powers it with instinctive controls that mean players of all skill levels can compete. It contains layers of strategic depth that unfurl organically, almost invisibly, simply through play; the tutorial is a slender thing indeed, yet for once in this frequently confusing genre, it barely matters. Yes, it's a little light on content, but what's in there is delightful, accessible, intuitive, playful stuff. From the off it's fun and, before long, it becomes oddly magical, too. Over time, it may become wondrous. At launch it will just have to settle for being merely excellent, and yet another standard bearer for Nintendo's new console. That, we suppose, is really the most important thing about *Arms*.

9



ARMS HOUSE

Play any mode, online or off, and you'll earn a currency that can be spent on new arm types. To do so you must buy a pass to a minigame based on the main game's Skillshot distraction, but with a couple of twists: passing clocks can be struck to increase the timer, and loot packages will occasionally appear at the far end of the stage, each yielding a new arm when hit. You can take any character in, though there's no effect on which fighter you'll get new toys for – but progress is steady, since there are no duplicate drops. It's throwaway stuff, but at least it's a refreshing spin on character progression. We don't know about you, but we're getting sick of the sight of loot boxes.

Post Script

Why Arms' greatest trick is also likely its most divisive element

We can probably blame *Super Mario Galaxy*. Wii's star attraction was the game that truly invoked the ire of the more traditional segment of the gaming population; for all that the console's ground-breaking motion controls had broadened that audience, it had done so with games like *Wii Sports* and *Carnival Games* – titles built specifically for those controls, and those people. Wii launch title *The Legend Of Zelda: Twilight Princess* was easily forgiven, a Gamecube port with Wiimote controls tacked on to give early adopters something more meaty to chew over than the rest of the launch line-up offered. But *Galaxy*? A true mainline *Mario* game that insisted players give a little flick of the wrist to perform a spin attack, or to access the star gates that catapulted them between planets? Simply unacceptable, apparently.

For many, that was not the beginning of the end of motion controls. It was simply the end. Now, if they were to be spoken of at all, 'motion' would have to be replaced by 'waggle', 'controls' would make way for 'bullshit' and the whole thing would have to be said with a sneer. Or, if you were on the Internet – and you probably were, let's be honest – with an eyeroll smiley.

It was absurd then, and it's even more absurd now. These days we accept motion inputs as just another way to play, and sometimes the best way to control certain games. Where would VR, for instance, be without them? *Rez Infinite* would still be in touching distance of perfect, yes, but games such as *Budget Cuts* or *Superhot VR* wouldn't be the same. Indeed, they may not even exist. VR's return to the fore has been bumpy, but without Nintendo's motion-control groundwork, its comeback trail would've been even rougher.

Yet *Arms*, for all its quality, risks reopening old wounds. Here, once again, is a game ostensibly built for those for whom games are more than a mere pastime. Fighting games are in equal part renowned and feared for their complexity; *Arms*, however, does away with a lot of what we expect from a game in this genre. There are no complex combo strings to memorise. Indeed, the Flurry Rush super aside, we're yet to land a combo of more than three hits before an opponent is knocked down. Every move, including the damaging Flurry, can be performed with a single gesture or button press.

As such, *Arms* finds itself in a difficult place. Committed fighting-game players may see it as too simple. Novices may see a game in a genre that has always baffled them. The *Galaxy* hate mob may – OK, probably will – see a simplified fighting game that's played with motion controls and dismiss it out of hand as a game that's compromised at a conceptual level. We'd love a Nintendo-developed fighting game, they'll say. But we want a *proper* one.

The Galaxy hate mob may – OK, probably will – see a simplified fighting game that's played with motion controls



In fairness, there may be times when you'll agree with them. Feeling a little overconfident after a few successful hours against the AI, we headed online – but Ranked matches aren't available until you've cleared the singleplayer Arcade mode at difficulty level four. Well, fine; we've done one through three, so this should be easy enough. Except it turns out there's a very good reason Nintendo has elected to gate off the punishing battlegrounds of ranked play in this fashion. Level four is a heck of a step up; we struggle for an hour so then quit out, suitably chastened. We put the Joy-Cons to one side, pick up the Pro controller, and try again.

It's still no cakewalk, though it's a good deal easier – but then again, it should be. We don't have to think about how to operate the controller in our hands. Motion controls are intuitive, yes, but not to the same degree as the friendly configuration of sticks and buttons that we've held in our hands for countless thousands of hours over the years. This is why *Galaxy* became a sort of bête noire for the trad-games crowd: its hybrid of 'proper' and motion controls added a layer of uncertainty into their play sessions. I know the problem, and I know the solution. But what's the thing I need to do with my hands to make it happen?

This is precisely, of course, why motion controls exist, and why Wii was such an instant success: because your non-gaming relative didn't need to ask you which button to press to make the little man serve the ball. It's why *Arms* is the way it is, too. Nintendo hasn't made a true fighting game since the '80s, because the complexity and niche appeal of the genre don't chime well with the company's almost obsessive desire for its games to feel welcoming and easy to understand. That it has made something so friendly, yet so deep, with such a basic set of inputs is remarkable, yet it runs the risk of being dismissed on sight by an element of the game-playing public that sees being asked to do anything other than twiddle thumbsticks and tap buttons as an affront.

The difference this time is they don't have to. Thanks to its host hardware's portable nature and various controller configurations, in *Arms*, motion controls are optional. For our money they're preferable, even if they're not optimal, the joyful physicality of a local multiplayer bout proving more than enough to make up for any frustration at the occasional botched or misread input. Perhaps the wider public will agree. Maybe *Arms* will, by offering both sides of the control divide at the same time, be the game that finally repairs gesture controls' reputation. If not, it may have to make do with being the Switch's *Super Mario Galaxy*. That, in fairness, is pretty good company to be in. ■

Dirt 4

Something's wrong. We're not referring to the flapping thud of a burst tyre or the wince-inducing scrape of detritus lodged against the brake rotor – though both of these noises are causing us concern. No, it's Nicky Grist's calm, collected pace-note delivery as we desperately try to keep ahead of the class leader's time that's bothering us the most.

In *Dirt Rally*, Codemasters' bold recent experiment with the chameleonic series, chief game designer and professional co-driver Paul Coleman recorded the game's pace notes while wearing a helmet and strapped into a D-Box motion seat. The peerless outcome communicated the stress of fast sections and the violence of camber changes and bumps. But Grist's apparent insouciance suggests that the team has reverted to a more traditional recording-booth setup. It does the job, of course, but despite the return of a big name it's hardly as stirring, and feels like a step back.

The game is dialled back in other ways, too. Take the visuals, for example: while *Dirt 4* certainly has its moments, it rarely looks quite as striking as *Rally*; some subtle lighting effects for snow glare and reflective signs are pleasing, but the inexplicably ugly water and rain effects are an odd comedown from *Rally*'s dirty splendour. The new locations are problematic, too. Both games drop in on Sweden and Wales, but *4*'s additions of Australia, Spain and Michigan just don't raise the pulse like *Rally*'s Finland, Monaco or Greece. The absence of iconic locations such as Sweet Lamb and Pike's Peak compound the matter further.

Dirt 4 goes someway to making up for its lack of official courses with Your Stage, the procedural route generator on which the rest of the game is draped. You can only determine length and complexity via a pair of sliders, and set time of day and weather conditions, but the system is capable of generating an all-but-limitless parade of diverse courses (you just might have to hit the generate button a few times to get the twisting descent you were hoping for). The results are surprisingly convincing, for the most part feeling like real or hand-designed efforts – indeed, Codemasters has even used the tech to populate the game's career mode.

Procedural generation's inherent problems aren't fully solved – there's a disquieting sense of déjà vu as you hurl your car through identical acute left handers or dodge the same formations of rocks on the outside of several sweeping right threes – but what they lack in bespoke detail is more than recouped by the dizzying variety of routes. More importantly, the continual flow of unfamiliar corners and crests perfectly captures the intensity of rally driving, in which quick thinking, improvisation and inadvisable bravery are all essential attributes. And the ability to save your creations, build multi-stage events (which pay out and contribute to your career earnings), and then share these with your

Developer/publisher Codemasters
Format PC, PS4, Xbox One
Release Out now

Despite a multitude of improvements and a larger offering than its predecessor, Dirt 4 feels less spirited



PASS PLUS
Joyride mode appropriates the DirtFish Rally School in Washington for a huge series of courses on which to attempt lap-time and smash challenges. The former dots each circuit with red and green tokens – each of the latter you pick up reduces your lap time by a second, while hitting the former, which are often placed in difficult-to-avoid locations, does the opposite. Smash challenges, meanwhile, give you a set number of blocks to find and destroy with your car, tracing routes that allow you to go full Ken Block as you slide the car around piles of tyres and under excavator arms.

friends and challenge them via online leaderboards could give *Dirt 4* the longest tail of any rally game so far. Blasting down a procession of short, two-mile stretches of randomly generated gravel is thrilling and moreish.

Another advantage of using created, rather than real, tracks is that Codemasters has been able to construct a career mode free from the usual uneven difficulty curves that are synonymous with rally games. Here, you start with single stages just over a mile in length, and progress up to the multi-event championships that take place on complex eight-mile routes. Combined with a commendably detailed and supportive Dirt Academy, which takes you through a wide range of basic and advanced techniques, this is the most accessible *Dirt* career mode to date.

Accessibility is a key concern for the series' fourth numbered entry. *Dirt Rally* was uncompromising, and brilliant for it, but it catered for a specific, dedicated audience. Creating a handling model that appeals to both that hardcore contingent and the broader audience of the main series would be a fool's errand, so Codemasters has built two separate models instead. Right from the off you can choose between Gamer and Simulation – a distinction so profound that it has its own menu option rather than sitting with the other settings. Gamer shaves off all of the rough edges, tidies up your car's attitude in the corners (even with all the assists off) and imbues tyres with Herculean levels of grip. It's not so intrusive you can't break traction or lean on the particular characteristics of your car, but everything still feels stifled and dull.

Switch to Simulation, however, and *Dirt 4*'s cars come to life. The game's tweaked version of *Rally*'s handling model may prove divisive, however. While the nuance and complexity of vehicle feedback and response remains, Codemasters has increased the fidelity of its suspension physics and made cars – even the Stratos – slightly more forgiving. For our money, *Rally*'s setup provides the more satisfying challenge, one that better communicates the violence of rally driving. But *4*'s revised, and still remarkably involved, handling flatters more and has the knock-on effect of making playing with a pad almost as enjoyable as a wheel.

The handling tweaks are particularly noticeable when wrestling with buggies in the returning Landrush mode, and make Rallycross (which retains *Rally*'s licensed venues and adds three more) exhilarating bumper-to-bumper racing more manageable.

But despite a multitude of improvements and a much larger offering than its predecessor, *Dirt 4* somehow feels less spirited. Had *Rally* not existed, this latest game would've felt like more of an event, but in its current form it doesn't quite achieve the potency of its more focused forebear.

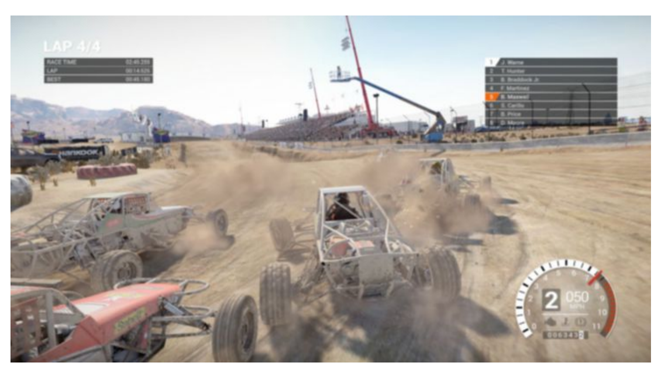
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LEFT You can now retain control of your car after the finish line, bringing it to a controlled stop in front of the marshal. It's a nice touch that adds to the sense that you're taking part in real events. **BELOW** Landrush takes place on a handful of fictional tracks, and proves riotous fun. It makes for a pleasant change of pace, too



ABOVE Codemasters throws in details like crashed cars that make its procedurally generated tracks feel more alive than they might have otherwise. We miss photographers dashing from the track, though





You can create your own team livery and gradually amass sponsors to make everything look more professional. Once founded, you can enter your team into any of the game's events ▶



As well as modern vehicles and kit cars, *Dirt 4* includes a host of rally legends for you to fling down its winding courses

Post Script

Reinventing the wheel

When we visited Codemasters back in **E**306, we noted the fearlessness with which the company approaches new entries in its long-established series. Whereas many developers would be averse to straying too far from the template of such proven commercial successes, Codemasters thinks in the longer term.

Take the bold reinventions of *TOCA* and *Colin McRae Rally*, which became the *Grid* and *Dirt* series respectively. And those fresh starts heralded continual experiments with format, presentation and even handling models. It's an approach that risks raising the ire of fans – indeed, the *Dirt* series' flirtation with US disciplines and Americanisms has caused displeasure among some sections of its audience in the past – but also one that mitigates against any danger of stagnation.

Dirt Rally was Codemasters' boldest exercise to date, a critically lauded swing to the simulation end of the handling spectrum and a chance to experiment with early-access development for a studio more used to polishing its efforts behind closed doors. But it's also a hard act to follow. In returning to the broader appeal of earlier entries in the series, Codemasters was faced with perhaps the most polarised *Dirt* audience to date. Whereas before the schism concerned rally purists and fans of the dazzling spectacle of the Landrush and Gymkhana events, now it's centred on the core of the game: the way the cars handle.

Rather than dictate the character of the latest *Dirt* game, then, Codemasters has instead tried to please everyone by providing two very different handling models. Getting both right was, we imagine, an unenviable workload. But perhaps this switch from dictatorship to democracy is to blame for *Dirt 4*'s underwhelming form. Here's a game that makes a good fist of catering to everyone, but many aspects suffer as a result.

That's not to say that *Dirt 4* isn't as courageously designed as previous games in the series – far from it – but rather that it's unavoidably less focused. Don't get us wrong: Your Stage is a remarkable creation that, after years of development, raises the bar for procedurally generated racetracks. It may repeat tiles with slightly too much frequency, but that's the only clue that these routes weren't designed by hand. Flinging a car down them is just as satisfying as navigating real-world or designed stages, and the way they keep you on your toes dovetails perfectly with the spirt of rally driving. But in opposition, both Landrush and Rallycross, while brilliant fun, feel considerably less substantial than the main rally component, offering only a handful of tracks and slimmer career modes.

The game's expanded team management system, meanwhile, is far more in-depth than the one found in *Rally*, but feels just as cold and detached despite the newly introduced need to manage employees' moods and keep sponsors happy. And while we're happy to see the earlier games' hyperactive staging areas have been made more authentic, *Dirt 4*'s pit area, while laden with detailed options, is a bit lifeless. In the end, much of the game feels like a series of compromises as aspects of *Rally*'s exposed underpinnings and the glitzy excesses of earlier entries meet at an unsatisfactorily resolved halfway house.

None of this undermines the value of Codemasters' approach, however. *Dirt 4* is still an accomplished game, and while some may prefer *Rally*'s less forgiving handling, *4* still boasts one of the best off-road driving models ever created. In allowing itself the freedom to experiment with *Dirt*'s form, Codemasters continually breathes new life into a series nearly two decades old. Such a commitment to reinvention will inevitably occasionally misfire, but it's hard not to escape the feeling that if Codemasters had been more forthright in the form *Dirt 4* should take, the result would have been more impactful. ■



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Injustice 2

There's a reason fighting games don't tend to have loot systems, yet *Injustice 2*'s implementation of the randomised gear grind is more effective than we'd expected. Still, going in, we wondered in which direction the scales would tip. Make gear too powerful, and you ruin the vital even balance on which a game in this genre lives or dies. But tone it down too much and it might as well not exist. For the most part, *Injustice 2* leans more towards the latter, but makes up for it in sheer volume. Every match, whether online or off, won or lost, ends with a chance at some loot, though you'll leave without a drop more often than not. Completing missions and challenges sees you rewarded with specific gear pieces, loot boxes or both, the latter of which can contain up to four potential new toys. It's suspiciously generous early on, flinging gear and loot boxes at you with abandon; this, surely, is just the first-hit-free methodology of a free-to-play game, whose torrent will soon slow to a trickle. But it isn't, and it doesn't.

In fairness, it can't, either. While a menu option gently weights loot drops in favour of the character you're playing as, this is a game comprised of 28 heroes and villains, each with eight gear slots to fill. As such, if it's going to be anything approaching satisfying there is going to need to be loot, and lots of it. So it proves, though it'll be some hours before you feel like you're actually getting anything useful. Early on you're looking at, say, a three-point increase to a stat with a base level of over 1,000. The occasional Epic drop will offer a boost to multiple categories at once, and hint at what awaits later on. By the time you hit the level cap of 20, your base stats will be around 2,000, and gear pieces can boost those by over 300. It's not purely about raw power – some bonuses affect XP or currency accrual, mitigate certain types of incoming damage, or reward certain behaviours, such as not jumping. But effects are minor, and offer little to truly quicken the pulse. Dozens of hours later, with a handful of characters at max level, we're still yet to receive a single piece of gear that has felt transformative, or anything like it.

Expecting game-breaking loot drops from a versus fighting game is a fool's errand, perhaps – but what is most striking about *Injustice 2* is the extent to which you can avoid human competition altogether. In the Netherrealm tradition, the three-hour cinematic story mode is an absolute treat: as in the first game, the cheery comic-book setting is a much finer fit for the template than the gloomy brutishness of *Mortal Kombat*, and a new option to choose between two fighters in certain chapters is a fine addition. While we still can't quite get our heads around Netherrealm's battle animations, its facial modelling is almost beyond reproach, lending a much-needed air of believability to its Saturday-morning tale of people with superpowers duffing each other up. If you've played a few fighting games, your natural instinct after the campaign's credits have rolled will be to head online. Don't. The Multiverse is *Injustice 2*'s beating heart, its true singleplayer mode, its theoretically infinite endgame. The problem with Netherrealm's story campaigns is that you're never given enough time with a single character to learn them properly, but here you're given all the time you need, free to take the fighter of your choice through a rotating, time-limited and often themed succession of battles. Here especially, it rains rewards: matches are over quickly, completion of each set coughs up a loot box or two, and challenges – land a number of super moves, for instance – yield further rewards when completed. The result is unheard of in the fighting-game genre: a game that offers the single player something new to do, and rewards for doing it, every time they load it up.

That, combined with the one-more-go hook of the loot pursuit, makes *Injustice 2* terrifically difficult to put down. It's full of variety, too: in most fighting games we learn one character and stick with them until the point of either mastery or boredom, yet here we're making eyes at the rest of the cast as soon as a warrior hits the level cap. After maxing out Supergirl, we headed to the inventory to see which character had amassed the most gear. It was Bane – so he became our next project.

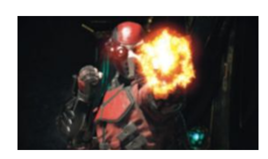
It's not all plain sailing, however. Some Multiverse challenges are tweaked by modifiers that have seemingly been designed to annoy, rather than enthral. The game changes speed; lights go off briefly every few seconds; ordnance rains down to interrupt your combos. Perhaps the stage will see-saw throughout the fight, or flip entirely so you're fighting on the ceiling. A boost to super-move damage sees us lose 75 per cent of our health bar to an attack we had blocked. The nadir comes in a fight that gives both characters full armour, doing away with the concept of hitstun as two fighters stand next to each other and press their strongest buttons until one falls over. And for all the Multiverse's magic, we're not entirely sure it's made better players of us. The AI happily stops blocking as soon as you activate your super, for instance, while the scoring system disproportionately rewards you for finishing a match with these powerful mini-cutscenes despite there being half-a-dozen more useful ways to spend meter.

We'd probably still get stomped if we went online, then, but the fact that we've managed to play over 30 hours of *Injustice 2* with barely any human or networked company rather says it all. Games in this genre are too often bare-bones, using the infinite appeal of their magical multiplayer modes to excuse a lack of things to do in them. Well, no longer. This is still a Netherrealm game, with all that implies, and it isn't without its missteps. But for lone wolves at least, this is the richest fighting game on the market.

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Developer Netherrealm Studios
Publisher Warner Bros
Format PC, PS4 (tested), Xbox One
Release Out now

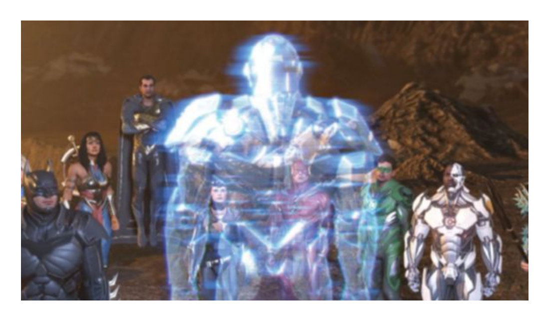
The Multiverse is Injustice 2's beating heart, its true single-player mode, its theoretically infinite endgame



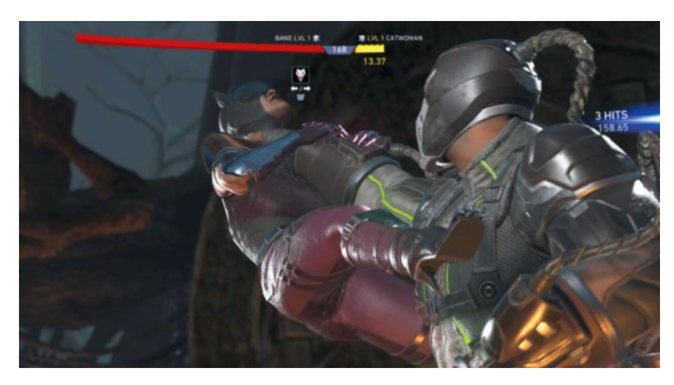
BURN CLINIC
Super meter builds terrifically quickly in *Injustice 2*, since the bar fills as you both land and take hits. Cinematic super moves are the flashiest way to spend it, and given the ease of input (you simply squeeze both triggers simultaneously) they're a reliable route to big damage. Yet chunks of super meter can be used to perform a succession of vital moves: interrupting blockstrings, escaping juggle situations, or using an invincible roll to get out of the corner. On the attack, a Meter Burn is equivalent to *Street Fighter*'s EX system, amping up special moves – but rather than adding extra hits or more damage, they change the move's very properties, turning low attacks into overheads, or freezing enemies in place. Little wonder that, in high-level competition, those long, flashy super moves are so rare a sight.



LEFT Super-move cinematics are great the first time you see them, but their appeal soon wears thin. If you can end a round with the first hit of a super, it skips the rest of the animation, but still nets you the Multiverse score bonus. **BELOW** Grapplers such as Bane can have a torrid time of it against projectile users. Get up close, though, and everything changes. **MAIN** Supergirl's Space Port is a common source of complaint among players because of its speed, but its damage is low



ABOVE Story mode is only a few hours long, but there's more longevity here than in previous Netherrealm games. There are two different endings, and you can't see the other one until you've replayed a handful of chapters





Tokyo 42

Ever wondered how Where's Wally might benefit from the addition of katanas and miniguns? Well, wonder no more. *Tokyo 42* tips its bobble hat to the children's picture-book even before an overt homage during a mission that demands you gun down citizens sporting red-and-white-striped jumpers. It's a game about blending into – and occasionally standing out from – milling crowds in a minimalist dystopia that, with its spindly figures and pristine surfaces, reminds us by turns of LS Lowry, *Mirror's Edge* and Akira.

The city's the star here. It's presented from a semi-distant isometric perspective, all the better to show off its clean lines and tidy geometry, its blend of classical and near-future architecture. It's an urban sprawl that feels disarmingly compact: at any one time it's like you're peering down upon an artisanal diorama – and, in truth, the diminutive size of its inhabitants does rather compel you to lean in for a closer look.

Before you have time to really take in the sights, you're quickly thrust into a conspiracy: the game's protagonist has been framed for murder, and is gradually inveigled into pulling off a series of hits on key targets as the mystery deepens. But once you're given a little room to explore, you'll find a quietly absorbing simulation of a future city, where some of the most pleasurable moments are those in which you can simply stop and watch, or mooch around among the gangsters and punks, the hardcore minigolfers and militant nudists. So much so, in fact, that it's almost a shame when, after all that idling, a game breaks out.

Almost, because the game itself isn't bad at all, if a little uneven. In its singleplayer campaign, which stretches to 25 story missions and almost three times as many sidequests, it's redolent of both Bullfrog's original *Syndicate* and the cartoonish violence of the early top-down *GTA*s, while borrowing the clearly defined stealth systems of *Metal Gear Solid*. Myopic guards have visible vision cones that taper inward the longer you remain in sight, as if they're narrowing their eyes to determine that, yes, an interloper is in their midst. But duck behind a wall and they'll forget you were ever there, and as long as you stay out of range, you can bludgeon one of their own and they won't bat an eyelid. Likewise if their patrol route should take them past a fresh corpse.

If they're fairly relaxed as long as you kill their colleagues out of sight with a melee weapon, a single gunshot is enough to send them into a frenzy, meaning it's time to take evasive action or to break out the heavy ordnance. In the first instance, you'll note that enemies remain alert for some time; breaking line of sight is one thing, though you can also temporarily don a disguise to blend in. But this is limited by an energy meter, which depletes with alarming speed and can only be recharged by standing on energy pads – and in restricted areas these are few and far between. As such, you can only

Developer SMAC Games
Publisher Mode 7 Games
Format PC (tested), PS4, Xbox One
Release Out now (PS4 TBA)

Once you're given a little room to explore, you'll find a quietly absorbing simulation of a future city



HITMAN: EXPOSITION
Tokyo 42's story unfolds through text-based conversations with a steadily expanding range of contacts. As your reputation increases with each successful hit, you'll attract the attention of an underground mobster; shortly afterwards, you'll team up with another assassin after being challenged to take out a target before him. It doesn't take itself too seriously, establishing its tone with an opening sequence where you vomit over the side of your handler's speeding skycar. If its line in corporate conspiracy isn't particularly intriguing or new, it's a robust framework for a diverse series of missions. You might, for example, be asked to grenade a target, or to aggro a group of punks to lead them into conflict with a cabal of weaponised naturists.

deploy it sparingly, when there's little cover to crouch behind and you're at risk of being exposed.

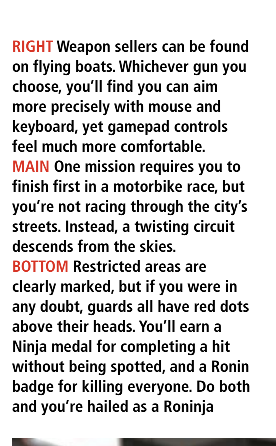
The guns-blazing approach, however, is often unworkable. It's fine in side missions where your objective is to take out a small gang of troublemakers, say, but when it's time to assassinate a heavily protected target, you'll find upwards of a dozen guards converging on your position. When a single bullet is enough to kill you and their position can be hard to gauge (an intentional, though often unsatisfying, side-effect of the choice of perspective) you can only realistically go loud when you've taken out most enemies and just a handful of stragglers remain. Set off an early alert and you're as good as dead; happily, checkpoints are generous and restarts swift enough to alleviate the frustration of a botched hit.

Still, for a game that promises a degree of freedom in how you approach a job, you'll often find there's a clearly preferred way of doing things. In one mission, you're encouraged to ride sky cars all the way up to your destination, to bypass several floors' worth of security detail; the alternative is doable, but painfully slow. Later, we spotted two obvious routes to our target, only to find that one meant making our way past a static guard whose vision was fixed on a narrow staircase. Since a frontal melee attack automatically raises the alarm, and a single shot would be enough to send his companions rushing to his aid, we sighed and made our way back round to the evidently optimal path.

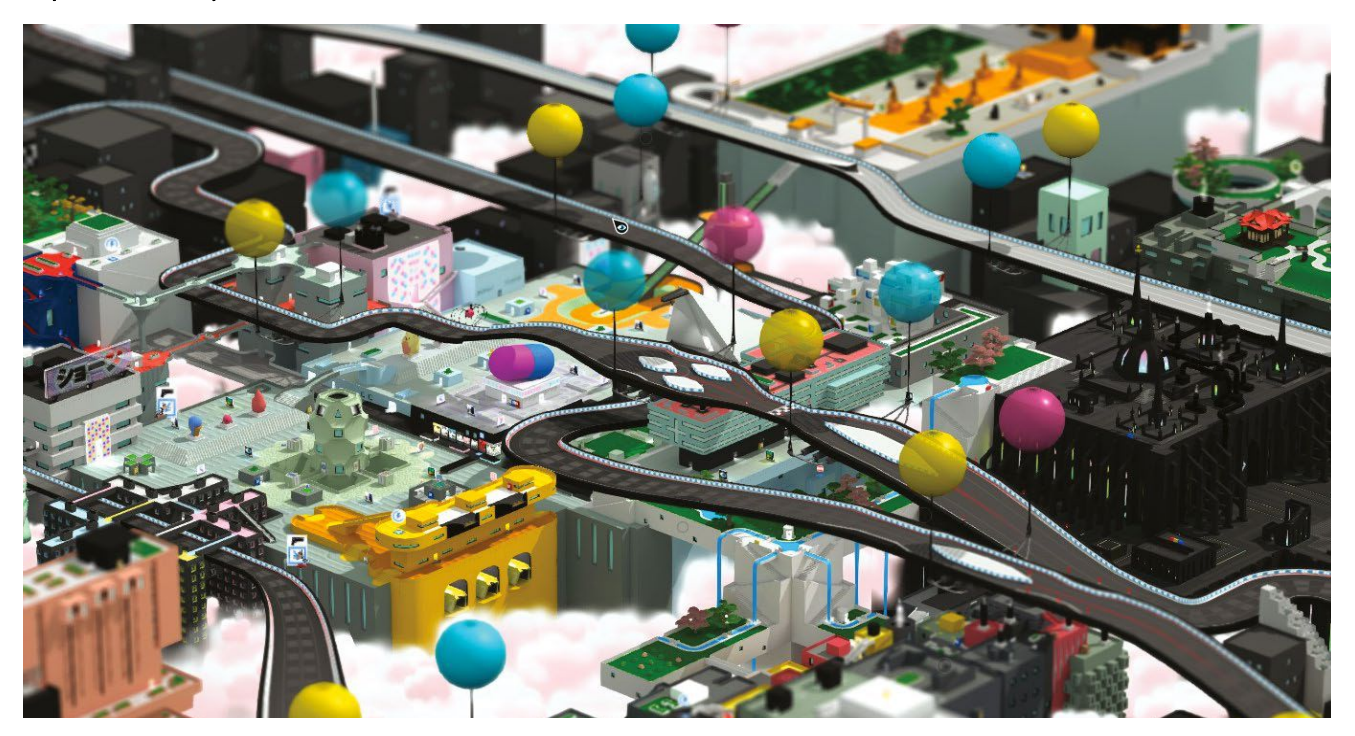
Yet when all goes to plan, *Tokyo 42* can be deliriously satisfying. Having been asked to snipe three couriers, we head to the vantage point, only to struggle to get a bead on them from above. Yet in an improvisational flourish, we leap over the parapet and gun down one courier mid-jump. Upon landing, we send another ragdolling up a staircase. It takes two more bullets to off the third, a near-miss followed by a headshot that downs him a split-second before he reaches his contact.

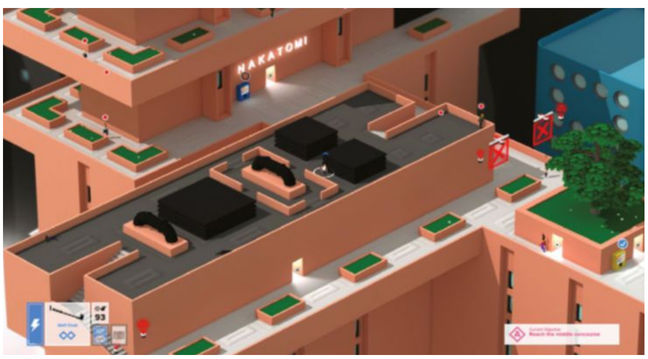
This kind of rush comes more frequently in the multiplayer game, which draws inspiration from the likes of *Assassin's Creed* and forgotten XBLIG treasure *Hidden In Plain Sight* in the way it invites you to behave like an AI citizen to outfox your opponents. Features underutilised in the singleplayer – like the ability to round a corner and press a button to emerge in another body, or deploy a tracker cat to scamper around the feet of a rival – suddenly come into their own on these dense, petite maps. Again, carnage is not only possible, but eminently likely as a match wears on. But make a gentleman's agreement to play it 'properly' and it's a minor classic, its matches bristling with an irresistibly twitchy tension before each violent release. Where's Wally? He's out there, somewhere, and he's got a concealed katana with your name on it.

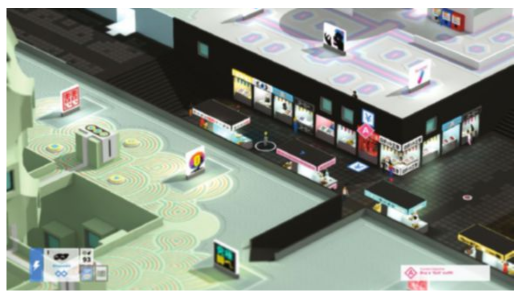
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RIGHT Weapon sellers can be found on flying boats. Whichever gun you choose, you'll find you can aim more precisely with mouse and keyboard, yet gamepad controls feel much more comfortable.
MAIN One mission requires you to finish first in a motorbike race, but you're not racing through the city's streets. Instead, a twisting circuit descends from the skies.
BOTTOM Restricted areas are clearly marked, but if you were in any doubt, guards all have red dots above their heads. You'll earn a Ninja medal for completing a hit without being spotted, and a Ronin badge for killing everyone. Do both and you're hailed as a Roninja









ABOVE Occasionally, you'll be warned that an AI hitman is on your tail. If they kill you, it's not the end of the world: you can simply respawn. But take them down first and you can scoop up the money they leave behind

Tekken 7

Developer/publisher Bandai Namco Entertainment
Format PC, PS4 (tested)
Release Out now

We're not buying the tagline. If "all fights are personal", *Tekken 7*, then shouldn't they involve at least a little personality? This is the latest instalment in a series famous for its brand of bizarre charm, all interspecies proposals and health-regenerating chickens. This time around, we catch ourselves crunching through the game's story, modes and opponents, wondering when the fun will start. It's not that *Tekken 7* is a sub-standard fighting game – quite the opposite – but that the cold, complacent form in which it's delivered makes it hard to root for.

Its core 3D brawling system is as strong as ever, mind. Crisp taps of the four face buttons turn into meaty onscreen blows. Whether an old hand or a novice, you naturally start to drum out a rhythm and test the system's flexible options – one-one-two, two left hooks and a right – then combo into an experimental launcher or low sweep. The orange firework of a confirmed hit encourages, the white fizzle of a block denies. And *Tekken 7* makes even basic punch-trading cinematic. When two players at low health throw blows simultaneously, a slo-mo zoom-in on hits (or, with delicious excruciation, on a miss) builds tension and adds style without being intrusive.

Two other additions, Rage Drive and Rage Art, yield even greater results. A good scrap is dicey and dynamic, building to a KO crescendo, and these new mechanics give players even greater control over tempo. A health bar at 25 per cent or less pulses red to signal your character's Rage state. Either you spend the once-per-round buff on a Rage Drive – an EX-style move that gives you the advantage even if an opponent blocks it and can lead into some tricky set-ups – or try to land *Tekken 7*'s super move, the Rage Art. The latter's more punishable than the former, able to be blocked or side-stepped. But if it hits, the damage output is devastating. Fast fights hurtle towards that last quarter of life where mind games and Mexican standoffs come to the fore. With simple inputs, and no meter management to fret over, even inexperienced players are able to quickly start feeling out the fundamental rhythms of a fight.

Barring the not-exactly-original inclusion of supers, however, this will all be sounding familiar to long-time fans. *Tekken* has repeatedly proved its mastery of the tactile, versatile, virtual fistfight. In truth, the changes from *Tekken 6* to *Tekken 7* are incremental, but the tweaks and flourishes shine nonetheless in their rightful showcase: one-on-one fights. Local multiplayer is, as ever, the lag-free ideal – but the netcode is barely distinguishable from it during our online tests, and a lobby system for up to eight players makes getting a fight club together easy. The altered ranking system works well, too; more experienced players are no longer seen as beginners every time they decide to try a new fighter, so matchmaking seems less frustrating and fights fairer. Unless you're not a total newcomer, that is, because if you are then you're probably getting smashed about to kingdom come. Basic mechanical accessibility is just about all the help you can expect from *Tekken 7*.

It's every man, woman and panda for themselves: it seems Bandai Namco could barely be less interested in building up and supporting players, simply padding out the launch content with under-baked modes rather than offer any real training or guidance. Vague tips are meted out randomly at various points in the story mode. One loading screen attempts to explain what a Power Crush move is (think *Tekken Revolution*'s invincible specials). A small, sheepish button prompt might occasionally suggest you perform a Rage Art without giving any indication of what it is, or why you should.

You're always uncomfortably aware of feeding hours of your actual life to the void for a shot at a kooky hat

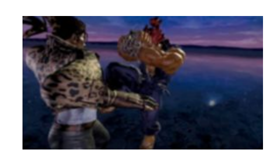
The singleplayer main event, meanwhile, is all over the place. Diving deeper into the Mishima clan's bonkers history is a tempting prospect, though, and the opening and final half-hour are the classic, campy *Tekken* we know and sort of love. But the majority is routinely awful. Too many fights are slogs through identikit Tekken Force grunts, dropped out of the sky like fun-nukes. There is – honestly – a thirdperson shooting section. On every difficulty, the AI's grand plan is to spam the same strong move over and over. And while the Story Assist feature is an admirable concession for first-timers – holding L1 turns the four face buttons into shortcuts for special moves – the side-effect is that it effectively robs players of the real joy of learning how to play properly.

Individual character chapters seem like an ideal opportunity for some combo training, but no. There's some enjoyment to be had here, at least – J-pop-idol newcomer Lucky Chloe aggressively tutoring fellow dancer Eddy Gordo is a highlight – but a few minutes of rushed characterisation leaves both lacking substance.

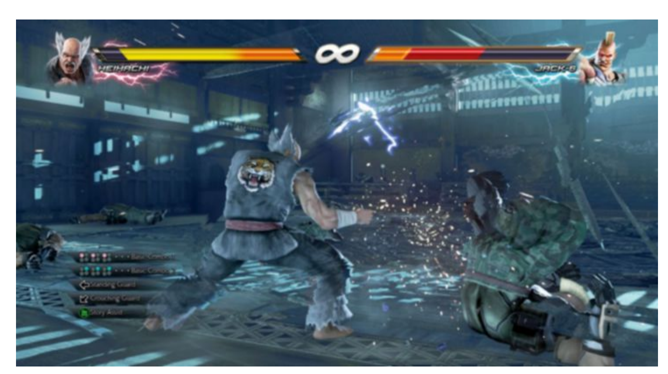
Arcade mode is a measly six-stage run through the same woeful CPU foes and is only good for grinding the in-game currency, Fight Money. It's used to purchase cosmetic items (surreal headwear, for instance), or you can opt for the lucky dip of Treasure Battle, an infinite series of scraps where each win gifts you a piece of loot. It's a nice idea, but so one-note and challenge-free that you're always uncomfortably aware of feeding hours of your actual life to the void for a shot at a kooky hat.

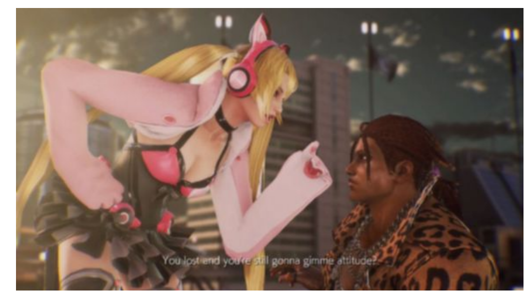
Tekken 7 feels cynically put together, a solid but ultimately 20-year-old fighting system freshened up with mechanical twists and bulked out with gimmicks rather than gilded with the series' signature personality. It's not enough to be technically proficient: you need a soul and a spark. *Tekken* used to have both in abundance; *Tekken 7* has neither, and it's hard not to take this slow decline as a personal affront. Perhaps that tagline isn't so wide of the mark after all.

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REALITY CHECK
It seems only fitting to mention *Tekken 7*'s PSVR-exclusive offerings here as an afterthought – because that's exactly how they come across in-game. Headset owners can choose between VR Battle or VR Viewer. The former has you beat up an AI meatsack in a single stage, in regular thirdperson view: it's an endless, HUD-less, pointless affair that you'll play once and then forget forever. (Bafflingly, regular training dummy settings aren't even an option here.) VR Viewer is a briefly interesting but basic character model viewer, designed to showcase the designers' detailed work and let you get a closer look at the shiny new cosmetic gubbins you've unlocked in the Treasure Battle mode. Namco might as well not have bothered at all.





ABOVE Where did Story mode's missing joy end up? In the character chapters, which can be riotously funny, if shallow. It's a shame that the new fighters are so underserved by a game that claims to focus on story



TOP Fighting multiple Jack-6 clones in one story mode section is an uninspiring chore, practically begging you to button-mash your way through with one hand and check your phone with the other. MAIN The bit where Lars Alexandersson whips out a gun is made all the more pointless by the fact that you can simply put it away and fight the grunts normally. RIGHT *Tekken 7*'s narrative leaves loose threads dangling, but we're left satisfied by the conclusion of the Mishimas' father/son struggle. Until the inevitable post-credits sequel tease, that is



Endless Space 2

Endless Space 2 has joined a landscape rich with 4X space-strategy games, something that could not be said for the series' debut in 2012. The rise of middleweight PC publishers has resulted in renewed support for, and interest in, genres that struggled in the previous decade. Sega's investment in a portfolio of PC strategy developers – *Endless* creators Amplitude, Creative Assembly, Relic – is evidence of a genre entering a new golden age. But now it's here, grand-strategy games face the challenge of modernising; of fixing long-standing problems that the genre has always had. In that regard, *Endless Space 2* is a mixed success.

Amplitude's strength remains its presentational flair. This is, by a considerable distance, the best-looking and sounding grand-strategy game around. Gorgeous hand-painted and animated 2D art illustrates everything from diplomacy to planetary management to the moment when a new colony ship sets down on an alien world. The quality and consistency of the presentation is remarkable. The soundtrack is wonderful too, from the orchestral arrangements that accompany a galactic view to the atmospheric synths that kick in on the discovery of a mysterious new world. These superficial elements matter because this is a deep game. A 4X campaign map is a set of menus pretending to be a place – and the more pleasant that place is to spend time in, the more enjoyable the overall experience.

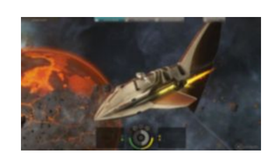
Diverse playable factions, now a staple of the *Endless* series, benefit from this excellent art as well as strong writing. While there is a default-feeling human faction, *Endless Space 2* encourages you to think of each of its eight launch races as a different game. Humans are militaristic, monarchic industrialists prone to aggressive groupthink, and this is represented in their strengths and weaknesses on the galactic stage. The Sophon are diminutive inventors whose scientific nous allows them to peer in on other races' research progress, useful for plotting a course to non-violent victory via *Endless Space 2*'s extensive tech tree.

Other races change the way you play even more substantially. The Vodyani, fanatical energy beings trapped in ancient spacesuits, live in mobile ark ships and reproduce by draining energy from occupied but non-aligned systems. The Unfallen are sapient trees, drawn into the galaxy when a space battle rained debris down on their homeworld. They colonise other lands by extending root-like tendrils down interstellar pathways, rising to pacifistic dominance with the support of durable starships that look like sycamore seeds.

Endless Space 2's combat system sets it apart, too. When two opposing fleets meet, each commander invisibly picks a strategy and assigns their ships to flotillas. Strategies apply top-level bonuses (increased damage at long range, for example) as well as dictating the route taken by each of up to three flotillas. The strategies chosen dictate how ships in each flotilla will meet, where, and when. This is the extent of your involvement as player, but you can subsequently watch the encounter play out in a well-implemented battle viewer. The system has a lot of strategic depth, particularly when combined with the ability to refit ships to amplify different strengths. Unlike many other 4X games, battles between two similarly appointed forces can go one of several different ways depending on the strategic nous of the commander – it's not just a matter of having the bigger fleet. Happily, the AI is capable of responding to your choices too: trounce them early and they'll adapt their fleets to challenge you later.

Developer Amplitude Studios
Publisher Sega
Format Windows
Release Out now

This is, by a considerable distance, the best-looking and sounding grand-strategy game around



PASS INTO LEGEND
Endless Space, *Endless Legend*, *Dungeon Of The Endless* and *Endless Space 2* – all of Amplitude's games to date – share a setting. Auriga, the planet on which *Endless Legend* takes place, is presented in *Endless Space 2* as a unique world in the grip of an ice age that yields scientific rewards for the faction that controls it. Similarly, the factions of the first *Endless Space* game make cameo appearances during events and quests. This compounds the sense of an ancient, storied universe that Amplitude is so good at evoking, as well as the blend of science-fiction and fantasy that is specific to it in the 4X genre. The inconsistent quality of these games at launch is a shame, because they collectively form something special.

There is much more to consider. Your research, development and foreign-policy decisions inform the popularity of political parties within your faction. The power of each of these waxes and wanes across regular elections, although exactly how this functions depends on your political model. Ruling parties, in turn, give you access to laws that angle your faction in a particular direction such as war, exploration or influence.

This is a complicated game, which unfortunately isn't mitigated particularly well by Amplitude's UI design. *Endless Space 2*'s interface is consistently beautiful but inconsistently functional. Extensive use of symbolic shorthand makes it a pleasure to use when you're familiar with everything that it needs to communicate, but early on it can be like trying to read hieroglyphics, despite the insistent assistance of a tutorial pop-up system that's a good deal more annoying than it should be. Consider that this is a game where 'manpower' and 'population' are distinct concepts, but where each needs to be represented by a symbol that looks a bit like a person. It's easy to make incorrect decisions early on because of simple misreading, and the trial-and-error learning process that this encourages is to the game's detriment.

Endless Space 2 has also launched with a large number of bugs and rough edges. Interactions with the UI can be inconsistent, particularly the pop-up system: diplomatic missives and battle notifications appear at the wrong time, sometimes in duplicate or triplicate.

In that sense, *Endless Space 2* adheres to a grand-strategy tradition: games in the genre are too often being released one major patch or expansion away from reaching their potential. This was true of *Stellaris* and recent *Civilization* games as well, but that doesn't excuse *Endless Space 2* – and it doesn't help that those other games, particularly *Stellaris*, are by now more mature and further along in their own journey. There's much to recommend in *Endless Space 2*, and its art and writing has the potential to open up a complex genre to a new audience, but there's no escaping the fact it'll be a better game in six months.

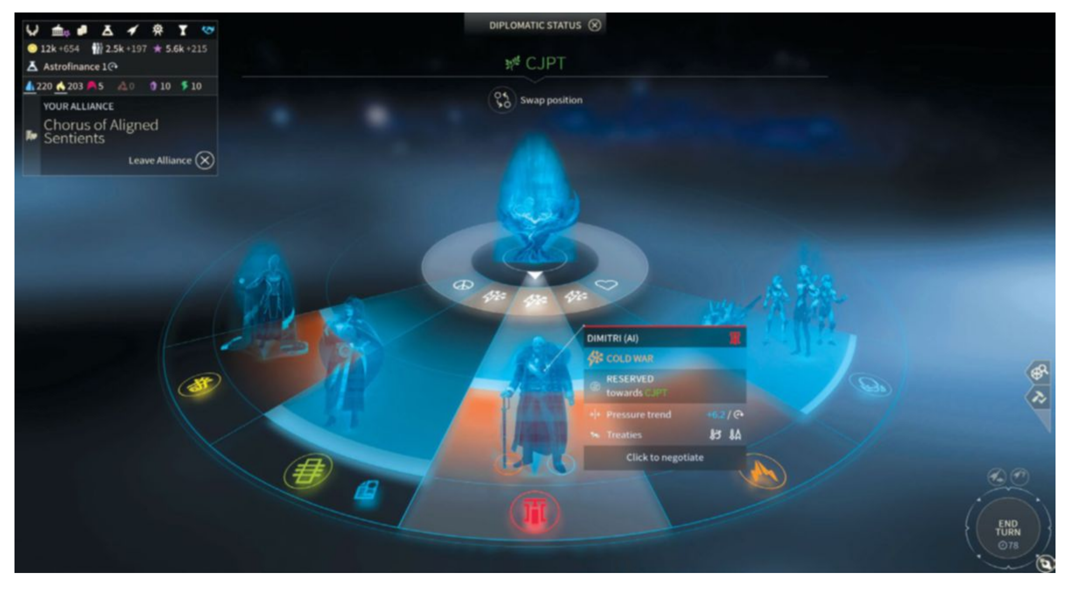
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ABOVE There's less depth to ground warfare, but the WarGames-esque presentation has charm. Generally speaking, it's about leveraging enough force to crack defences without destroying valuable buildings





MAIN You can't make any adjustments to your strategy while battle is in progress, but the tactical view is useful for seeing why certain choices have the consequences that they do.
ABOVE Campaign-map factors create diplomatic pressure that affects the kind of agreements that can be made between factions. If you're exerting enough pressure, you can make demands without offering anything in return.
LEFT Alliances between factions wield a lot of power, but joining one means sharing victory. Even so, sometimes the tradeoff is worth making if it stalls a warmongering opponent's progress

Polybius

Stop us if you've heard this one before, but Llamasoft's latest is a low-poly, high-speed marvel. It's a ride for which you'll feel the urge to strap in even before calmly voiced instructions from an airline safety announcement play over the opening level. You'll face a near-constant bombardment of flashing light and fizzing colour, with all manner of enemies, projectiles and swirling environmental effects hurtling at your face. Successfully negotiating all this at your craft's slowest speed is challenging enough; once it reaches peak velocity, blinking is off the menu.

'Do what comes naturally' is the only instruction you'll get, and it's all you'll need. Keep the X button depressed and your tiny ship will fire a stream of bullets as you weave left and right across planes, down tunnels and into trenches, and over and inside giant, hazard-strewn tubes. Pass through pairs of ungulate horns and you'll gain a speed boost and momentary invulnerability, though the gap's narrow, and bumping into them will reduce your shield count. Lose your protection entirely and one more collision will end your run.

You could play safe and simply avoid the gates altogether, even as a racing line on the floor tempts you towards them. But *Polybius* encourages daredevil play with a score multiplier that only builds if you take the risk and up the tempo. Besides, as the stages tick by, the challenge ratchets up regardless, with spaces becoming tighter, and enemies and obstacles more plentiful. Its weaker moments are those that enforce a specific approach: to clear high barriers encircling a tube, for example, you'll need to first find a jump pad. With so much going on, you may not spot that your only route involves rolling around to the underside.

Polybius is at its best when you're moving without thinking, surviving on unconscious instinct rather than by conscious design. Indeed, locating the exact position of your craft is often part of the challenge. And then comes the comedown from that psychotropic high, as a woozy time warp slows the pace dramatically and your pulse rate returns to something approaching normal, even as your multiplier rockets upward.

With its references to curries, Underworld lyrics, non sequiturs about toilet roll and Spectrum loading sounds, there's no mistaking this as anything other than a Jeff Minter joint – something that was no doubt involved in its making, you suspect. But a handful of familiar elements hardly matters when no one else is making games like this. *Polybius* is a profoundly consuming and transportive experience of eye-watering intensity that'll leave you dazed and bewildered in the best possible way.

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Developer/publisher Llamasoft
Format PS4, PSVR (both tested)
Release Out now



MINTER CONDITION

All three game types can be played in VR, and there's 3D support, too. On Classic and Pure modes you'll gain an extra three shields after every completed stage, up to a maximum of nine; the former lets you start from the last level you reached, while the latter sends you back to the start when you die. Finally, there's YOLO mode, which furnishes you with nine shields at the start but won't give you a top-up between stages.



Though we'd strongly recommend playing in VR, it's hardly required. And score-chasers might prefer playing on a standard screen: the experience might not be so overwhelming, but the action is a bit more readable in 2D

Star Trek: Bridge Crew

A starship captain, we suppose, should be unflappable and decisive, but at this rate, we're headed for a court martial. In our defence, the 'answer hail' and 'red alert' buttons are in troublingly close proximity. Later, as the flames lick around our console, a poor NPC lies dead and our hull integrity drops to single figures, we realise delegating isn't quite as easy as Kirk and Picard made it seem. But assuming you're prepared to ignore that one dogfight where we forgot to raise the shields, a finer Tactical officer you'll struggle to find. As long as you don't look too hard.

Star Trek: Bridge Crew is a new entry in that nascent genre of multiplayer games (populated by the likes of *Spaceteam* and *Keep Talking And Nobody Explodes*) where each participant has an incomplete picture, and communication is necessary to fill in the gaps for one another. The Captain of the USS Aegis has an array of information at their fingertips and must decide how best to approach each objective and guide his crew accordingly. A Helmsperson gets the glamorous job of steering the ship and warping to new vectors; there's something particularly satisfying about grasping that lever in your left hand and thrusting it forward to punch the engines to full throttle. In the Tactical chair, you scan anomalies and signals, arm torpedoes, manage shields and shoot down enemy craft. And the Engineer is the ship's secret heartbeat, rerouting power to engines for quick getaways or to phasers when more firepower is required – though if everyone else is doing their job properly, it can also be one of the more relaxing roles.

At times it feels more Thunderbirds than Star Trek, as you find yourself conducting an act of slightly clumsy puppetry, your body rigid but your avatar's head and arms moving along with your own. And yes, while there's a beautiful external view you can switch to, ultimately each job boils down to looking at displays and pushing virtual buttons. Yet the experience is consistently absorbing. One mission sees us nervily sneaking through Klingon patrols, our captain's quick thinking and helmsman's capability keeping us safe until a daring advance to transport survivors from a stricken ship alerts a cloaked craft. One thrilling firefight (and a hasty warp) later, the Aegis is ablaze, but our mission is a success. The collective relief is palpable.

Procedurally generated missions add extra meat to an otherwise thin campaign, but the human element means quests never play out the same way twice. *Bridge Crew* transforms an ordinarily isolating technology into something irresistibly social: it's an anecdote generator par excellence, and a VR experience that handily overcomes its limitations as a game.

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Developer Red Storm Entertainment
Publisher Ubisoft
Format PSVR (tested), Rift, Vive
Release Out now



CAPTAIN SOLO

The singleplayer option can't really compete with the collaborative experience, though it's an amusingly frantic exercise in micromanagement. Rather than using your voice to lead, you'll need to select options from a range of menus. Bridge-wide commands let you quickly engage or analyse targets, say, though at times only more specific instructions will do. And if you're not happy with the AI's decision-making, you can blink into their chair to briefly assume their role.



Cross-platform compatibility means PSVR, Rift and Vive owners can all join one another, the only real difference being that console players can't point their avatar's finger so accusingly at a teammate not pulling their weight

Farpoint

The fact that our front room looks directly out onto the street is unfortunate. Anyone who had the misfortune to witness us flailing around while wearing a PSVR headset and aiming at thin air with the glowing pink ball on the end of our Aim controller can't have come away richer for the experience.

For us, however, the incident was a surprisingly pleasant one. Impulse Gear's FPS is, for the most part, thoughtfully constructed and something of a revelation when it comes to free movement in VR. The default setting lets you steer yourself by turning your body, while you move about using the front analogue stick on the Aim controller. While there are other options (including free turning, and clock-position shifting) the standard setup marries especially well to the wide corridors down which *Farpoint* funnels you. While simplistic by modern FPS standards, taking cover behind rocks and scrap metal, and firing back at a selection of formidable – if not particularly bright – alien and robotic enemies, proves exhilarating.

The whole thing is elevated by that strange-looking peripheral. While fussy to set up (you're told to place the PlayStation camera, with its short lead, above head height for best results) the Aim acquits itself flawlessly

While shooting at bugs and other enemies constitutes a large part of the game, you'll also spend a good deal of time simply wandering through some remarkable alien landscapes. Cliffsides are especially breathtaking

Developer Impulse Gear
Publisher Sony Interactive Entertainment
Format PSVR
Release Out now



GOOD AIM
PlayStation Aim's matte-white stylings might look a little undercooked, but in use the device feels substantial and of high build quality. All of the DualShock 4's buttons, bar the touchpad, are included, albeit not always in the most intuitive position. The Options button, for example, is a bit of a stretch. It's also weighted to ensure that it's comfortable to hold with one hand, which – if support is forthcoming – will offer a little more flexibility for developers.

in-game (see Good aim). The device's one-to-one tracking and built-in vibration ensure that the virtual guns feel satisfyingly substantial, and the available armoury includes a space SMG, a shotgun and an underwhelming facsimile of *Halo*'s Needler. The highlight, however, is a powerful, laser-sighted sniper rifle that's introduced about halfway through the game. Lining up distant shots while staring down the virtual sights is a delight.

But while *Farpoint* is built around demonstrating the Aim's capabilities, it also tells an unexpectedly warm story. You play a shuttle pilot sent to pick up scientists Eva Tyson and Grant Moon from the Pilgrim, a research vessel studying an energy anomaly somewhere near Jupiter. Predictably, something goes terribly wrong and the story charts your attempts to locate Tyson and Moon as you learn about their own efforts to survive through the holographic and video recordings you find. It's just a shame that a lurch to more schlocky fodder for the final act spoils the overall effect somewhat.

Even so, what's here stands out simply for being the first convincing example of a VR FPS that doesn't make you feel sick. It's basic in comparison to other games in the genre, but deliberately so, and the grin-inducing pleasure of aiming a physical gun from behind what feels like real cover carries the game even in its less successful moments.





Impact Winter

Survival games are all about eking out little victories: as Shinji Mikami noted, "Beyond the hardship lies accomplishment." Yet the returns rarely correspond to the effort. It's the carrot of another goal that keeps you hooked, making you forget you're still chasing two of this and three of that to make one of the other. *Impact Winter* looks for ways to remedy this problem. The promise that help is arriving in 30 days sets you a clear – if somewhat distant – target to work towards, and you can even bring it closer. Being part of a group means you don't just have something to fight for, but some*one*. And borrowing *Resident Evil 4*'s wondrous inventory-management system is never a bad idea.

As Jacob, leader of a small band of survivors holed up in a church, you set out each day into a desolate, snowbound world, the result of a devastating meteor strike. Your job is to turn trash into treasure, filling your rucksack with items scavenged from snow caves, empty houses and abandoned cars, before bringing them back to base so NPC friends can craft items to stave off starvation, dehydration and even depression. Whiskey, as you may know, is a real morale-booster.

A hovering robot buddy, Ako-Light, absorbs data from everything you do, from discovering new places to successfully crafting items. This helps boost your radio signal to reduce the rescue timer by a few hours, while unlocking new roles that Jacob can assign to his colleagues, each with pros and cons. Some of these are logical: it makes sense that a Negotiator might pacify intruders so they don't injure anyone when breaking in, though they'll leave with more of your supplies. But immunity from flu making one more likely to create rifts within the group is rather harder to accept.

Moments like this mean it's hard to ever see your allies as real people, more a series of gauges that regularly need topping up. "Some of the team love particular recipes and assigning them to the right person will boost Morale," chirrups Wendy, the group's cook. This is a human being you're meant to care about. Not that you'll spend enough time with fellow survivors to form an attachment anyway – you'll only see them briefly when you return to drop off your latest haul.

Sluggish menus, clumsy controls and an intrusive, atmosphere-scuppering soundtrack mar each excursion, while excessive weather effects will have you straining to see as you awkwardly bump up against objects to find out if they can be ransacked. It's telling that your main reward for doing well in *Impact Winter* is hastening the endgame; like Jacob, the thought of spending a full month in this gloomy little world is enough to have you reaching for the Scotch.



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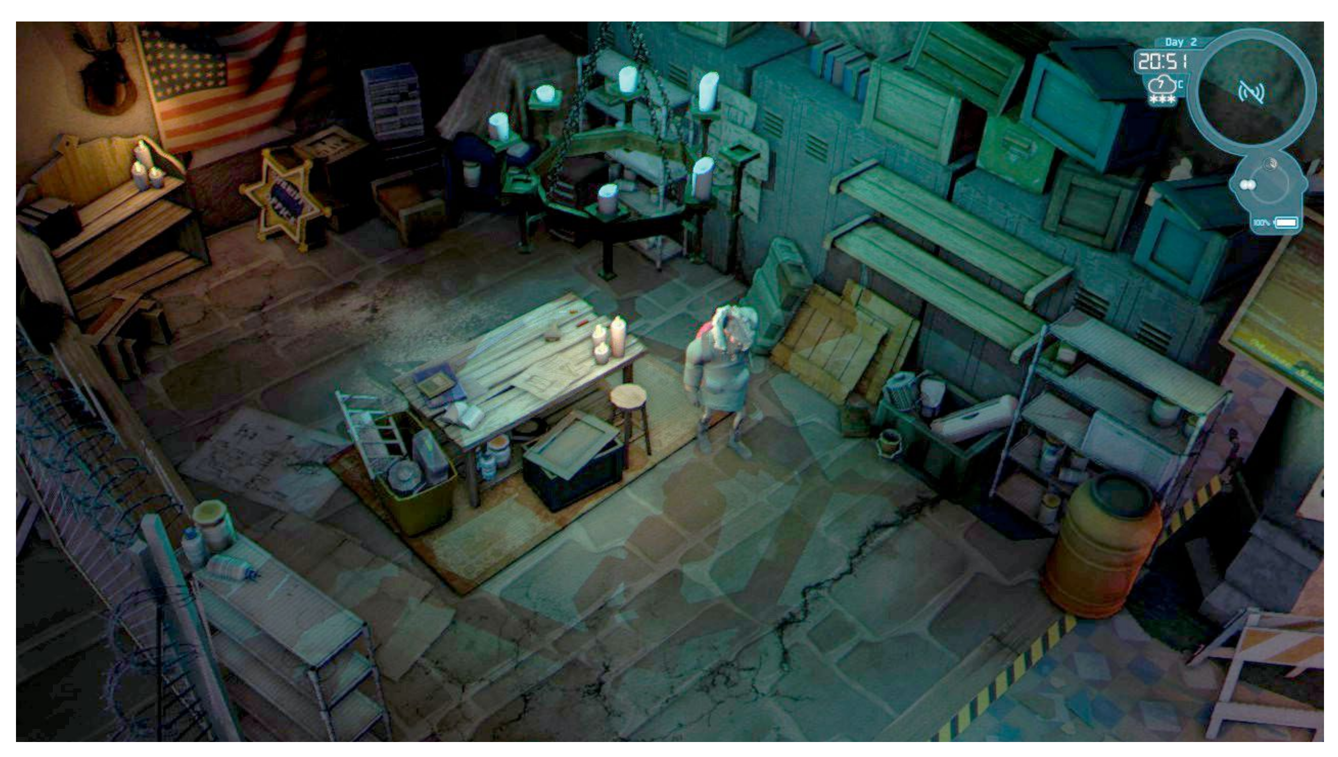
Developer Mojo Bones
Publisher Bandai Namco
Format PC
Release Out now



SNOW WONDER

They're too few and far between, but the odd triumph and the occasional startling discovery (an abandoned playground; the half-buried fuselage of a crashed plane) might just encourage you to stick at it. Since the game moves at a pace that makes Tarkovsky look like Michael Bay, finding the ingredients required to craft a skidoo for speedier scavenging was a particular joy – at least until we realised it meant carting around fuel cans of inventory-hogging bulk.

The interface is a mess. Some objects – but not all – are outlined to show you can search them. You can only quit *some* menus with B. To exit one screen you have to press start; for another only the back button will work





Destiny

Closing the book on the best, worst, and most brilliantly boring FPS around

By Nathan Brown

Developer Bungie **Publisher** Activision **Format** 360, PS3, PS4, Xbox One **Release** 2014

Everyone who has played *Destiny* will tell you a story about it. They'll probably have a few, actually, but ask them to pick their most memorable and it will likely be the tale of how they got their first Gjallarhorn, the all-conquering rocket launcher that made mincemeat of just about everything during *Destiny*'s first year. We doubt many can beat the story of the member of our raid team who got theirs by stopping on the approach to a loot chest deep in the Vault Of Glass, and firing their entire supply of rockets at it. Stepping up to open it, out popped Gjallarhorn. For weeks afterwards, the other five raiders would unleash rocket after rocket at the luckily impervious chest in the hope of seeing it spit out *Destiny*'s most prized reward.

Such were the lengths we went to, in those early days, to tip the odds in our favour. *Destiny* launched in September 2014, and within days it had become starkly apparent that this was not the game we had dreamed of, or the one Bungie had promised it would be. Its story, if you could call it that, was over in a flash. Our character hit the level cap of 20 within days, and it seemed there was nothing left to do. A pop-up window that appeared after we hit level 20 hinted at a new purpose – the pursuit of Light, the true measure of a *Destiny* Guardian's power – but the only way to raise it was to play, again and again, levels and missions that we felt we had already picked clean.

In the absence of anything new to do, Bungie gave us punishing difficulty and a miserly random loot system. The weekly Nightfall Strike, for instance – a ramped-up version of an existing mission with tougher enemies and a selection of cruel gameplay modifiers – offered up one of the best loot tables in the game, with a reasonable chance of dropping legendary and exotic gear upon completion. Yet enemies would frequently appear at a level or two higher than you could ever reach, and if all three team members died, they'd be kicked to orbit, and would have to start over from scratch.

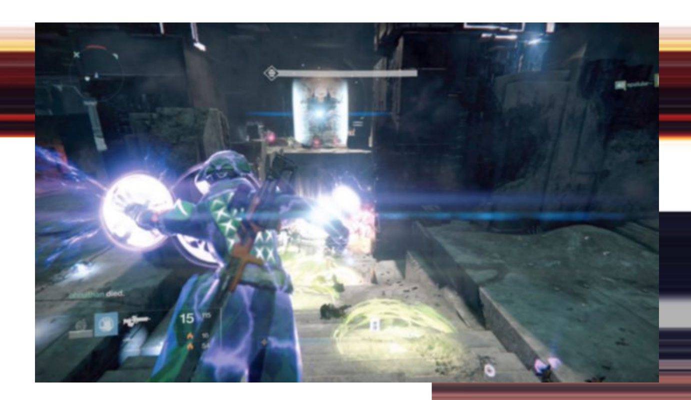
Faced with those odds, it's little surprise that players did what they could to cheat the system. One Nightfall boss could be killed by hiding beneath a raised platform, shooting through a small gap that enemy ordnance couldn't fit through, using Ice Breaker, a sniper rifle whose ammo replenished automatically over time. It worked, but playing *Destiny* this way was slow, boring and not in the spirit of the game, so Bungie patched it. It did likewise for the infamous loot cave, a small opening in a rockface in Old Russia's Skywatch zone from which enemies constantly spawned, and into which players would empty clip after clip, standing stock still until their supplies ran dry.

Destiny was the first game in Bungie's ten-year deal with Activision, but the game would likely have died, and the contract been ripped up, within weeks of launch were it not for the Vault Of Glass. VOG, to use the *Destiny* community's affectionate shorthand for the game's first raid, launched a week after the base game – just long enough for the committed player to reach the recommended level 26 (and for most of the online press to rinse through the story component, hit level 20 and slap a lukewarm score on the game). Even now, four expansions and three more raids later, VOG is held up as the best *Destiny* – and co-op console gaming in general – has to offer.

It was clear from the start that this was different to everything else in *Destiny*, whose missions until now had been linear excursions between objective markers, with variously sized gunfights building to a battle against a bullet-sponge boss. Yet VOG opened by asking a six-strong team to split up and hold three capture points from incessantly spawning enemies. Inside there were boss fights, yes, but they were no mere shootouts. Each had a set of exacting mechanics to learn, to devise a solution to, and to conquer. In between there was light relief – a frequently hilarious platforming puzzle with disappearing scenery, which even now is all too easy to mess up – and a marvellously fraught stealth maze whose patrolling Gorgon enemies would instakill anyone they laid eyes on. VOG was difficult, yes: the first team in the world to clear it took over ten hours. But it was the most rewarding activity *Destiny* had to offer, both figuratively – the sense of satisfaction after you and five friends finally clear a ▶

difficult section is part of what makes *Destiny* so special – and literally, as some of the best loot in the game flooded into your inventory after each boss was vanquished.

And what loot it was. The armour on offer was, at the time, the only route to the true level cap of 30. And the guns were, aside from the more widely available Gjallarhorn, the best available. Indeed, for our money, they still are. There's never been a hand cannon like Fatebringer: it had the Firefly perk, which caused enemies killed by headshots to explode, dealing heavy damage to those around it, and Outlaw, which greatly increased reload speed after a precision kill. It was more than a gun: it was a game in itself, training you to pick your shots, and rewarding you for doing so by killing four other enemies in the vicinity, then refilling your clip in a split second. It's simply one of those guns – *Doom II*'s super shotgun, *Titanfall*'s smart pistol and so on – that will be talked about for years.



Bungie's final gift to *Destiny* players was to revitalise old raids with contemporary enemy levels and loot drops. Any excuse to run VOG again

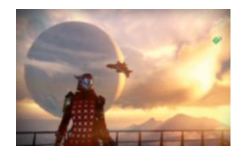
The second problem was, inevitably, RNG. Since VOG was, for a spell, the gatekeeper to the level cap, you were reliant on the game granting you a full set of raid armour. Many were left looking for just one piece (for most, weirdly, it was a pair of boots). The hunt spawned a meme, 'Forever 29' – one drop short of the maximum level of 30. A wounded Bungie has been working to make amends ever since.

THE PAIN MAY HAVE STOPPED, BUT WE DIDN'T. ONCE YOU'D GOT ALL THE GEAR YOU NEEDED YOU CARRIED ON ANYWAY

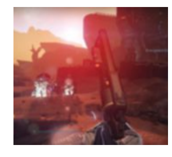
Yet for all that VOG was a masterclass in design, and the gear that dropped from it a delight, it also exposed two of *Destiny*'s greatest problems. The first is that a handful of guns were overpowered, to the extent that anything else was considered a waste. When the hard-mode version of Crota's End, the second *Destiny* raid, launched, it was widely accepted that the final boss fight was as good as impossible without a full team of Gjallarhorn owners. Matchmaking websites, created to help players assemble raid teams – there was no such facility in the game itself – hosted listings with strict team requirements, almost all of which insisted on applicants being max-level and with Gjallarhorn in their inventory.

Indeed, the studio has worked tirelessly on these two distinct problems, struggling to balance a set of weapons that must fulfil two very different needs – in PVE, being overpowered is fun, but in PVP, it's ruinous – while reducing *Destiny*'s reliance on a random-number generator. It's been largely successful: in its final form, *Destiny* is the fairest it's ever been. Guns are finely balanced. Loot still drops randomly, but the most powerful gear is available through fixed, clearly explained (though typically long-winded) means. Everyone can reach the level cap by simply playing what is now a very generous, accommodating game. There's little to complain about in *Destiny* today. But it's missing something, too.

Randomness is a powerful thing. And for the first 12 months *Destiny* was defined by RNG – powered by it, propped up by it, the



The Tower social hub hosted bounties, vendors and quest givers – and plenty of fellow players to show emotes to



ARMS RACE

The Crucible PVP mode was more than just a running battle between two teams of six: it was a years-long war between Bungie and its players, too. A game played with randomised tools was always going to be subject to a meta, and so it proved, with weapon archetypes rising and falling in the pecking order as Bungie sought to patch the game into a state of fairness. Shotguns and sniper rifles were persistent offenders, however, and it was only with *Destiny*'s final update, *Age Of Triumph*, that players were finally compelled to put them away. A change to the way secondary-weapon ammo was acquired meant that sidearms, which give you a fixed amount of ammo when you spawn, came to the fore. Bungie's solution for *Destiny 2* is to class snipers and shotguns as power weapons – the same slot as LMGs and rocket launchers.



While world sizes are reasonable, they're heavily instanced, with corridors and back alleys masking the load times

reason we loved it and hated it and kept on playing it anyway, going into work the next day bleary-eyed, disappointed and itching to get back to it. The weeks or months of waiting for your raid boots, or Gjallarhorn, made the eventual payoff all the sweeter.

The pain may have stopped, but we didn't. Once you'd got all the gear you really needed you carried on anyway, playing and replaying the same old missions. Routes and enemy patterns had long been committed to memory, your god-tier weapons making mincemeat of them all. Luke Smith – the Bungie staffer who designed VOG, *Destiny*'s first and best raid, directed *The Taken King*, its best expansion, and is now leading development of *Destiny 2* – once described *Destiny* as "the bar I can go to in my pyjamas", and it remains the most succinct explanation of the game's appeal. A few sphincter-clenching raid sections aside, it's the most laid-back game about shooting alien monsters you could possibly imagine. The advantage to having so little content was that, if you played it enough times, you could do it without thinking about it. It's a highly social game, with a largely friendly community – the kind that forms when players come together to see off some of the toughest challenges in videogames, then spend a couple of hours popping Cabal heads, farming upgrade materials and talking about their days to wind down.

None of this would have happened had *Destiny* not been one of the finest action games around. Not even the magic of VOG would've saved *Destiny* had there not, beneath the miserly loot system, the wet fart of a story and the content drought, been a rock-solid FPS. We expected great gunplay from the maker of *Halo*, but *Destiny*'s true mechanical magic lies in the way it borrows from the MMO – with its cooldowns and super moves, its deeply customisable subclasses – and uses them to create something that subverts, and elevates, our expectations of the FPS. That foundation carried the game through three years of peaks and troughs; no doubt it will do the same for the forthcoming sequel, and the full length of the Activision contract. Yet as we finally close the book on *Destiny*, the lingering impression is not one of a shooter, or even an RPG – but a game that somehow managed to be the best when it was, by any objective standard, its absolute worst. ■

Rise Of Iron, the final *Destiny* expansion, was reportedly meant to be a minor release, but was bumped up in status after *Destiny 2* was delayed





JAMES LEACH

Postcards From The Clipping Plane

Conveniently ignoring the serious side of videogame development

We, on these tiny, cold islands, make some of the best games in the world, but they always get categorised, especially in the United States, as British. Apart from, I suspect, the *GTA* series, which satirised the US so effectively that they think it's American over there. Sweet irony. Which, like satire, I think could be lost on them. But being British about games isn't a design thing. There isn't a British look to our games, and nor do we use Britten and Vaughan Williams exclusively for soundtracks. It stems from two sources. Firstly, the time when it's set. Anything vaguely fantasy and sword-filled ticks the box the rest of the world calls 'Merrie England'. Secondly, dialogue. We talk funny. We sound clever but archaic. We have slightly surreal and occasionally mean flashes of humour. We stand out.

Being British is, as recent history proves, important. But we take on a vast avalanche of US culture all the time. It's been going on for 70 years and there's more each year. It doesn't register with us that something – a film, a game, a song or a TV show – is American first and foremost. We just like it for what it is. Or, frankly, hate it for what it fails to be. Just had to get that in there.

We're doomed, as game creators, to be little brother. The osmosis by which we absorb so much of their creative output, and they get to see the best of ours makes us look good, but also keeps us in our pigeonhole as old fashioned, polite, aristocratic and possessing a glorious disregard for dental hygiene. And apparently we spell things incorrectly. Huh.

It's worth noting that outside of politics we don't stereotype Americans. This is partly because there are 320 million of them, but also because they all have guns and are daft rednecks. See? It doesn't entirely work, so we don't bother.

So off I set to write some quirky Britishness for a game being developed in California. They tell me they love Monty Python and Ricky Gervais and I decide that, if I was John Cleese or, in fact Ricky Gervais, this game would



I find myself lapsing into a sort of Victorian argot, which has never worked in a game ever, and never will

practically write itself. And they want erudition. This isn't the word they choose, because they don't know it, but I'm good at reading between the lines.

The trouble is, as I start, I'm aware of how I sound. I'm not just fleshing out characters and writing dialogue: I'm talking in an accent I don't normally think about because I'm English. I find myself lapsing into a sort of Victorian argot, which has never worked in a game ever, and never will. So I do a lot of deleting and start again. Now I'm aware of how many Americanisms I use without thinking. My USP is in danger of vanishing. The answer is to stop thinking about it and just write what needs to be written.

Over the years I've discovered that in the first draft of any dialogue, the closer I can get while writing it to the speed at which it's delivered pays dividends. Surely, it'll be riddled with typos and sometimes, when my fingers are all one key to the left of where they should be, it looks like fluent Klingon, but overthinking is the killer. Once it's there, it can and will be refined, but writing how people talk must come first. If I didn't hate the sound of my own voice, I'd probably be better off dictating it into a recorder.

This is odd because game development is achieved by the very opposite of gung-ho speed and the desire to smash it all out as naturally as possible. Everything is about making it seamless, work perfectly and then get burnished to a glowing finish. And yes, the words do get that treatment, but some of the best, most pivotal or, dare I say it, emotional scenes and lines I've written just tumbled out and usually made it in without changes (typos excepted). Recording the VO is similar. Once everyone is in the zone, the quality increases and we all get home at a reasonable time too, which is important if we're in central London.

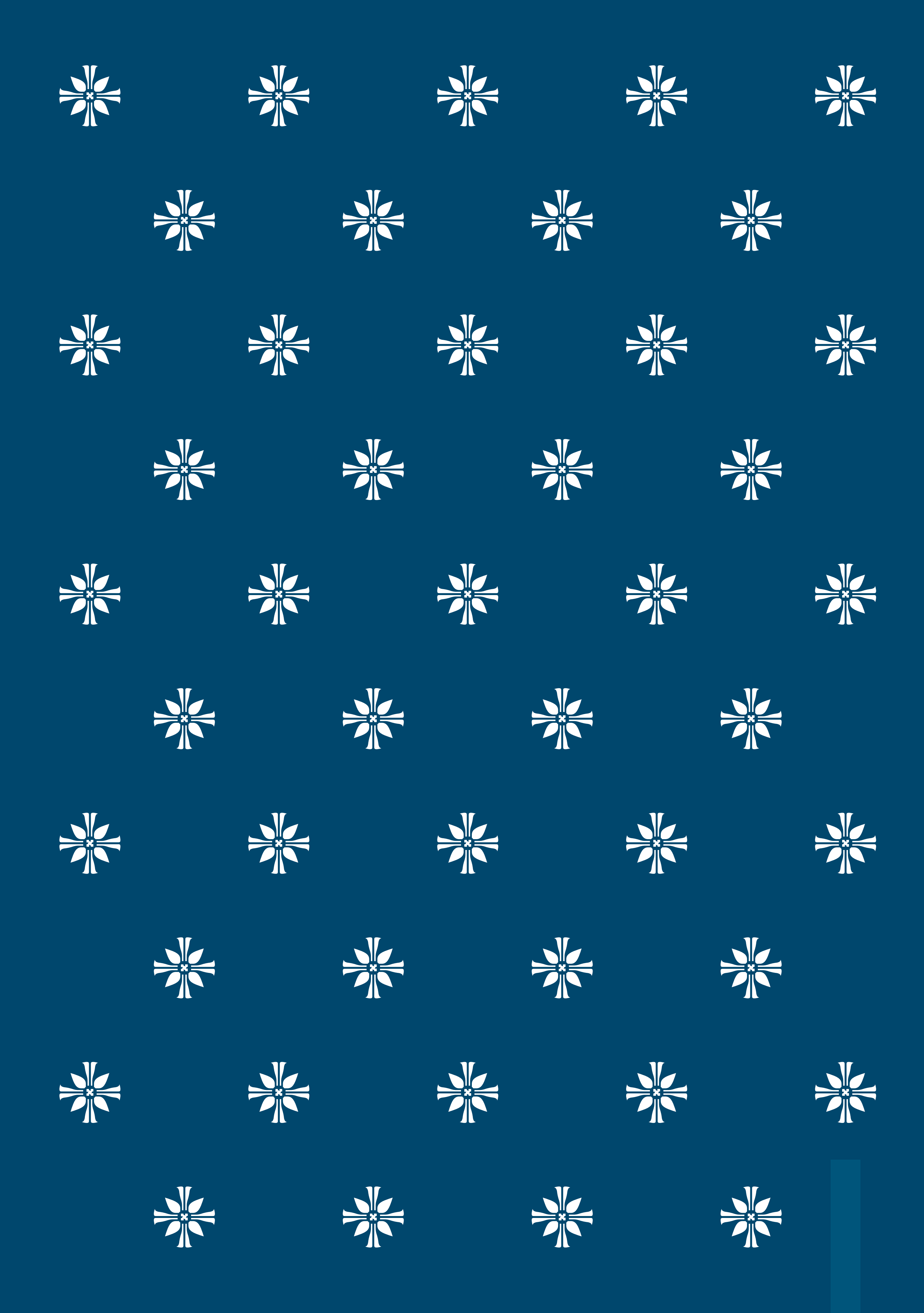
Here's a thing – I was once commended by an American university professor for the way I wrote female characters. The reason I think they singled me out is because I didn't write them as female at all. Like writing British, it's a mistake, as a male, to constantly be aware that the words you're typing are going to come out of a female mouth. The original script for the Alien movie of 1979 didn't ascribe gender to any of the characters. And when they were cast, practically none of the lines changed. And the result? Ripley. So it's a fine approach. They're people, or elves or warriors or whatever, and it works. Although when they play games I've written lines for, people who know me well often say it sounds like me. Again, everyone wins.

James Leach is a BAFTA Award-winning freelance writer whose work features in games and on television and radio

Illustration **Box Kite Curve**

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